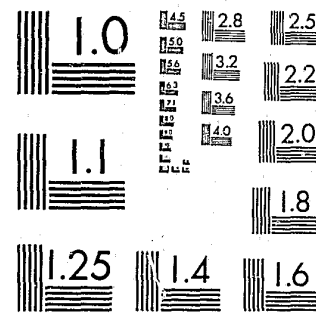


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ARSON CONTROL
A Synthesis of Issues and Strategies
Based on the
Arson Control Assistance Program

Final Report
November 30, 1981

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Law Enforcement Assistance Administration
633 Indiana Avenue, N.W.
Washington, D.C. 20531

Grant Number: 80-IJ-CX-0002

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ACKNOWLEDGMENTS

This report represents the combined efforts of many people. We would like to thank our co-authors for their diligent efforts in all phases of the project: research design, site visits and report preparation. Our outside consultants--David Lucht, C. J. Classen, William Hurteau and Edward Lemerise of FIREPRO, Inc. and Alfred Lima of Consulting Research, Inc.--also provided invaluable assistance at all stages of the project. They were particularly helpful in the on-site data collection and the review and revision of the final report.

Numerous other staff members at Abt Associates contributed to this study. Joan Mullen, Area Manager of the Law and Justice Area, provided management support and technical review. Nancy Ames was lead technical reviewer for the project and made invaluable contributions to all chapters of the final report. Bradford Smith provided technical and management review. Other Abt Associates staff involved in data collection, site visits, report preparation and review included: Blue Tabor, Lindsey Stellwagen, Patricia Evans, Judith Feins, and Deborah Whitcomb. Administrative support and report production were ably provided by Aleta Chamberlain, Mary-Ellen Perry, Deborah Welch, Janice Knight, and Patricia Powell.

Our LEAA Monitors--Paula Hayes and Michael Sheehan--were extremely helpful and supportive throughout the study. Other LEAA staff, including Philip Windell and Judy O'Connor, provided valuable assistance in the early stages of the work.

A number of individuals graciously assisted us with technical matters related to arson control. These include: Robert Pesner of the New York City Arson Strike Force; Doss Sauerteig of the New Haven Department of Fire Service; Rexford Wilson of FIREPRO, Inc.; Gerald F. Murphy of the Property Insurance Loss Register; Carl Peterson of the National Fire Protection Association; and Henry Tovey and John Ottoson of the U.S. Fire Administration.

Finally, we owe a tremendous debt of gratitude to those who are carrying out the fight against arson in the ACAP jurisdictions. Literally hundreds of investigators, prosecutors, police and fire personnel, laboratory staff, insurance people, and municipal, county, and state government officials took the time to answer our questions and provide the information necessary to produce this report. They were, without exception, hospitable and helpful.

Richard Ku
Theodore M. Hammett
November 1981

EXECUTIVE SUMMARY

In the summer of 1979, Congress enacted the Justice System Improvement Act. Among the provisions of this act was a requirement that the administrator of the Law Enforcement Assistance Administration (LEAA) report to Congress on whether grants made to states or units of local government had made a contribution toward combatting arson. In response to this act, LEAA created the Arson Control Assistance Program (ACAP) in 1980. ACAP was the largest of several LEAA funding initiatives aimed at controlling arson.

Under the ACAP program, LEAA awarded grants totalling over \$9 million to 34 state, county, and municipal jurisdictions with the overall objective of assisting them to reduce arson losses. The 34 grantees invested these federal funds in a wide variety of arson control programs and strategies.

Abt Associates was awarded a grant by LEAA to evaluate the ACAP-supported projects and to compile into a single volume current information on arson control strategies, how well they seem to work, and under what circumstances "success" with these strategies is most likely. The report is intended for a diverse audience including all those who plan, manage, or participate in programs related to arson control at all levels of government and in the private sector.

The study was based on site visits to 18 projects funded by the Arson Control Assistance Program, telephone interviews with staff in the other ACAP projects, information on non-ACAP jurisdictions, information provided by experts in various aspects of arson control, and a survey of current literature in the field. This executive summary highlights the findings of the study and distills, from the larger volume of information presented in the full report, key elements for success with various arson control strategies. The summary is organized according to the chapter divisions in the full report.

Nature and Extent of the Arson Problem

In Chapter Two of the report, we argue that an understanding of the nature and extent of arson is vital to the planning of new initiatives against arson. As stated in a recent U.S. Fire Administration report to Congress, "Policy makers at all levels need reliable data on the incidence and causes of incendiary fires to formulate programs that effectively combat the arson problem, and to make informed decisions about resource allocation."

The extent of arson refers to such things as the number of arsons committed in a jurisdiction each year, the dollar loss due to arson, and the number of deaths and injuries caused by arson. The nature of the arson problem refers to the way in which the total arson problem is distributed along various dimensions, the most important of which is motive. Information on motive is especially crucial because by discovering why arsons occur, one is in a better position to prevent them.

Most of the ACAP jurisdictions had accurate data on the incidence of arson. However, differences in definitions, classification, and tabulation procedures render cross-jurisdictional comparisons difficult. Few jurisdictions studied had conducted a systematic analysis of the nature of their arson problem. Typically, jurisdictions do not possess the resources necessary to mount such an effort. Furthermore, many of the officials we interviewed felt that the impressions they had formed over time concerning the nature of the arson problem were sufficient to guide the planning of anti-arson initiatives. Nevertheless, our evaluation of the ACAP program suggests that some jurisdictions do not have a complete understanding of the nature and extent of their arson problem and that systematic collection and analysis of nature and extent data can be useful to anti-arson planning efforts.

First, such analysis can help prioritize use of existing staff and other resources. For example, if arson for profit constitutes a major portion of the arson problem, this may suggest targeting scarce prosecutorial resources on such cases. Moreover, such information can suggest increased efforts at coordination among various agencies and organizations. For instance, there may be a need to exchange intelligence with nearby jurisdictions and to work with insurance companies in order to identify possible suspects.

Second, information on nature and extent may help to identify additional resources necessary to strengthen ongoing arson control efforts. To continue the above example, if arson for profit is a major problem, then the investigation unit might benefit from the addition of gas chromatographs in the arson laboratory, training in researching financial records, and data systems to keep track of persons associated with past fires of suspicious origin. By documenting the incidence of this particular arson problem and the associated dollar loss in property (and taxes), one may be better able to justify increased expenditures for the purposes listed above.

Finally, nature and extent information may suggest new arson control initiatives where none previously existed. For example, if one determines that the arson problem is caused chiefly by juveniles committing acts of vandalism, then initiatives such as curfews, juvenile counseling, recreation and education programs, and enhanced juvenile justice system prosecution may be warranted. On the other hand, if arson is fundamentally associated with neighborhood deterioration and abandonment due to "milking" by absentee owners/arsonists, then a number of actions may be required to reduce the profit motive and opportunity to commit arson. In general, information on the nature of the arson problem is particularly useful in planning arson prevention programs.

In Chapter Two of the report, we outline a methodology for a systematic analysis of the nature and extent of arson based on records of actual arson investigations. While this methodology was not utilized in the ACAP jurisdictions, we believe that it may be of great potential value to planners of arson control programs.

The proposed analysis would be based on data concerning the objective attributes of fires--for example, geographical location, type of property, time and day, dollar loss, casualties--and the judgments of investigators as to the motives behind arson fires. The study design would incorporate a consistent and well-defined typology of motives as well as consistent standards and criteria for both eliminating and assigning motives. The design would allow each fire to be counted under more than one possible motive so as to allow calculation of percentage ranges of possible operation of various motives.

The proposed method can be implemented manually--no computer system is required--and, although it will involve some additional costs, these need not be unduly burdensome. The additional costs and burden on investigators might be reduced by hiring paralegals or graduate students, or by employing volunteer labor--such as community group members or retired accountants--to conduct "paper chases" or other parts of the work that need not be carried out by line investigators.

Arson Investigation and Prosecution

Investigation and prosecution are central to any anti-arson effort. These subjects are discussed in Chapter Three of the report.

We have identified four basic organizational schemes for carrying out arson investigation functions. Distinctions among the models are based on two factors: 1) the organizational affiliation of the investigative unit or units; and 2) the supervisory authority over the personnel involved. Within each model, there may be variations in the actual division of responsibility among personnel. Generally, however, these models reflect very different approaches to structuring arson investigation, each bringing with it different advantages and potential problems. The four approaches may be summarized as follows.

- Divided Responsibility between Fire and Police Departments. The most common organization of the arson investigative function is to divide the responsibility between the two departments. Typically, the fire department makes the cause and origin determination and interviews witnesses and occupants. If there is reason to believe that the fire is an arson, the case is turned over to the police department, which may proceed with an investigation. This

may not even be recognized as a division of responsibility with respect to arson investigation, but simply as the routine performance of activities in the two departments. Where there is a well-developed fire investigation function within the fire department, the division of responsibility may be different, with the fire department conducting some of the follow-up to the scene investigation.

- Exclusive Fire Department Responsibility. Under this model there are two variants, depending on the legal authority of the fire investigative unit and its personnel. In some jurisdictions, fire investigators have arrest powers and thus can carry the investigative process through to its conclusion on their own. Where this is the case, the investigators receive training as peace officers in addition to training in fire investigation. In other jurisdictions, the fire investigators may conduct virtually the entire investigation and prepare the case for the prosecutor, but must rely on the police to perform actual arrests.

As under all the models, the police take jurisdiction over certain aspects of the investigation where other offenses besides arson are involved. For example, in a fatal fire, the police homicide squad typically will take charge of the homicide investigation, while the fire investigators will investigate the fire.

- Joint Fire/Police Team Responsibility. For purposes of this discussion, a joint fire/police unit is defined as a team composed of both fire and police personnel under a single supervisory authority. The supervisory authority may be located in the fire department or the police department. Under this definition, the fire and police members of the team still belong to their respective departments (as opposed to the situation where the fire department has hired someone with a police background, or vice versa). The supervisor may not have total authority over all matters relating to team members' work and careers, but he does have the authority to assign and direct arson investigative work. Investigative tasks may be strictly divided between fire and police members, or shared completely, but the defining characteristic remains the common supervisory authority. (Supervisory authority which is shared by fire and police is considered a single supervisory authority if decisions are made jointly by the supervisors.)

- The Autonomous Investigation Unit

The autonomous investigation unit is defined simply as one which is located outside of the fire and police departments. It may be

located in the prosecutor's office or it could be organized as an independent unit under the local executive. It may be established to bring together personnel from police and fire backgrounds in a single unit, and/or to serve the needs of a multi-jurisdictional area containing a number of independent fire and police departments.

Our observations suggest that a variety of factors and considerations must be taken into account in selecting an arson investigative model and in developing an effective arson investigative strategy. These include the following:

- Primary Investigative Responsibility. Fire and police departments both possess resources important to effective arson investigation. Fire department personnel have expertise in determining the cause and origin of fires. Fire departments also maintain records on all fires which may facilitate analysis of patterns of geography, ownership, and modus operandi. Fire department investigators (who almost without exception have spent time as firefighters) may receive better cooperation than police officers from fire suppression personnel. On the other hand, police officers are skilled in conducting criminal investigations. Police departments often have special skills and resources unavailable to fire departments, such as crime scene photographers and evidence technicians, which can be important in arson investigations.

It remains an open question whether it is more efficient to teach persons already knowledgeable about fire how to do criminal investigations, or to teach experienced investigators about fire. There are examples of success with both approaches among the ACAP sites. Decisions usually reflect traditional practice, resource allocations, laws, politics, and personal relationships of key officials in particular jurisdictions.

- Supervisory Structure. In many jurisdictions the most efficient use of capabilities and resources may involve some combination of fire and police efforts to investigate arson. However, the most effective arson investigative units appear to be those operating under a single supervisory authority. It is often difficult to reconcile the need to maximize the use of existing resources in different agencies and departments with the desirability of a single supervisory apparatus. The various team approaches, both formal and informal, implemented in the ACAP sites offer examples of possible resolutions. These are described in case studies presented in Chapter Three.

- Capabilities of the Investigative Supervisor. The investigative supervisor should be knowledgeable about arson investigation and should possess strong managerial skills. The supervisor should be able to set investigative priorities, deploy investigative resources, oversee the development and utilization of arson-related data, identify training needs and training opportunities, identify personnel and equipment needs, and obtain the cooperation of key public and private organizations and promote the exchange of information among them. Ideally, s/he should also be able to handle relations with the press and community groups and work for legislative reform where needed. In larger units, the managerial skills needed to carry out these functions may be a more important consideration than experience in arson investigation.
- Relations with Fire Suppression Forces. Regardless of the organizational scheme of the arson investigation unit, it is imperative that it cultivate good relations with fire suppression personnel. To a large extent, arson units depend on suppression officers to trigger investigations. The observations of suppression personnel at the scene are important for detection and for providing information which can aid in the investigation. Moreover, the preservation of the scene is critical to a proper cause determination.
- Size of the investigative unit(s). Appropriate unit size depends on a number of factors, such as how many fires need to be investigated and which tasks are to be carried out by members of the unit versus additional support personnel (such as evidence technicians and photographers). There is no simple formula for determining the optimal size, since the need for investigative resources will vary according to the types of investigations conducted (e.g., predominantly arson-for-profit investigations versus predominantly spite and revenge arsons). A careful examination of the present and potential need for coverage on different shifts, workload, and the hours spent on various types of cases and on specific tasks within those cases can provide information useful in determining unit size. However, experience suggests that as investigative resources are increased and more fires are investigated, more arsons are detected. This should alert jurisdictions that have not provided adequate resources to investigate a larger proportion of fires on a routine basis that many arsons may be going undetected.
- Specialization within the Investigative Unit(s). In some jurisdictions investigators perform all tasks in cases assigned to them. Some officials believe that this maximizes continuity in investigations and minimizes the chances of conflicting court testimony. In other jurisdictions, there is specialization of

functions within the unit. The most common division is between the cause and origin determination and the follow-up investigation. In large units there may be greater specialization by task, such as photographing or diagramming the scene, or by type of investigation, such as juvenile firesetters or arson for profit. Certain tasks may be assigned to persons outside the investigative unit, such as evidence technicians and crime photographers. Specialization within the unit and the use of resources outside the unit may result in the development of higher skill levels and represent an efficient use of investigative resources. Obviously, the extent of specialization is dependent on the size of the unit and the availability of outside resources.

- Staff Scheduling. Staff and shift scheduling may be very complicated, particularly in units operating under the divided responsibility model. In general, staff scheduling should be based on reliable data as to demand for services and should insure that personnel who must cooperate in investigations work either synchronized or, at least, overlapping shifts.
- Involvement of the prosecutors. Prosecutorial involvement with arson investigative units varies considerably across jurisdictions. In some jurisdictions the prosecutor's office may be closely involved in investigations, beginning with the preliminary fire scene examination. In others, the investigative unit may develop cases fully before presenting them to the prosecutor for screening and/or issuance of an arrest warrant. Early involvement of the prosecutor is considered by both prosecutors and investigators to produce more and stronger cases.
- Formality of Structure and Procedures for Cooperation. The structure and procedures governing the operation of arson investigation units range from highly formalized, in which inter-agency relations and operating policies are detailed in writing, to highly informal, in which effective cooperation depends more heavily on responsibilities and personal relationships. There are successful examples of each among the ACAP jurisdictions.

Several geographical considerations affect the formulation of arson investigative programs:

- Multi-jurisdictional deployment. This usually involves city or county arson units providing investigative assistance or coordination to local authorities within or surrounding their jurisdictions. There is considerable variation in the formality and geographical scope of such arrangements.

- Decentralized deployment. Jurisdictions of large geographical size may consider decentralizing their arson units to improve response time, establish closer relations with suppression forces, and make greater use of local intelligence sources and community group involvement.

Regardless of the location and organization of the investigation unit, it is important to implement policies calculated to select and retain high-quality staff. Such policies include:

- selection criteria for investigation positions which ideally would include formal examinations and minimum standards of training and experience;
- adequate compensation packages; and
- possibilities for promotion and career advancement within the investigative unit or the department as a whole.

Arson investigations are directed toward prosecution and conviction of arsonists. The prosecutor exercises enormous influence over the attainment of these goals by screening cases and controlling their presentation in court. Arson cases may be difficult to win and prosecutors may be reluctant to accept them.

The characteristics of arson cases most often cited as posing particular difficulties include the following:

- the need in many cases to establish the incendiary origin of the fire in court without an eyewitness;
- the importance of establishing motive where the case against the suspect is largely circumstantial;
- the complexity of testimony about financial records and transactions which may be necessary to establish motive in an arson-for-profit case; and
- the frequent need to rely upon highly technical evidence and expert testimony.

Measures that appear to be effective in overcoming these difficulties include the following:

- Early involvement of prosecutors in arson investigation. Prosecutors may attend fire scenes to see first-hand what must be described in court and to offer advice to investigators on case preparation.

- Increased prosecutor knowledge of fire behavior and technical aspects of fire investigation. This may be achieved by attending fire scenes and otherwise maintaining frequent contact with investigators, as well as by participating in formal training programs.
- Arson prosecution structure, aimed at continuity of case assignment, and specialized treatment of arson cases to the extent possible. Specialization at the screening stage is particularly important in guaranteeing that arson cases receive a knowledgeable review.

Training is essential for all personnel involved in every stage of arson investigation and prosecution.

- Fire suppression personnel need training in arson detection. If they are not able to detect signs of arson, no investigation may be requested, and even if an investigation does commence, valuable evidence may have been lost.
- Fire and arson investigators require training in a broad range of topics. This training may be tailored to the jurisdiction's division of investigative responsibility. It should cover technical aspects of investigation as well as evidence handling, legal requirements, and court demeanor.
- Forensic chemists and laboratory technicians require training in analysis of fire debris for the presence of accelerants and in the proper use of all equipment available for such analysis. Their training also should cover procedures for evidence handling and maintaining the chain of custody.
- Prosecutors should be trained in fire behavior and arson investigative techniques and should keep abreast of the statute and case law governing arson. Informal contact with investigators at fire scenes and in the general course of investigations may be as important as formal training in acquiring this knowledge.
- Cross-training. In order to foster coordination and cooperation, it is essential that each category of personnel involved in arson investigation and prosecution have at least rudimentary knowledge of the responsibilities of the others.

Training programs relevant to arson are available at the national, state, and local levels.

- The National Fire Academy, Federal Bureau of Investigation, Bureau of Alcohol, Tobacco and Firearms, U.S. Fire Administration, and National College of District Attorneys, as well as other federal agencies and national organizations, offer training. The National Fire Academy training in arson investigation is offered both at the Academy and at other locations around the country through an outreach program.
- The ACAP program was used by state grantees to develop and upgrade state training programs in arson detection and investigation. State arson investigation training is often based on the NFA course supplemented with state-developed instruction on state laws and procedures.
- Large municipalities often provide their own training, particularly in arson detection for firefighters. However, many localities cannot afford or justify their own programs due to size or resource constraints.

Training at the national and state level offers a number of advantages, including the following:

- makes possible standardized training leading to standardized certification requirements for arson investigators;
- provides training on a more cost-effective basis, particularly for staff from smaller jurisdictions;
- provides an opportunity for localities to implement a "train-the trainers" approach; and
- provides an opportunity for cross-fertilization of ideas and development of inter- and intra-jurisdictional contacts which might lead to better coordination and cooperation.

Laboratory analysis of fire debris is often crucial to establishing the incendiary causes of a fire. Some jurisdictions may have a choice of local, state, and national laboratories. There are a number of considerations involved in choosing a laboratory and making efficient and effective use of laboratory facilities. These include the following:

- Priority given to analysis of arson samples. There may be competition from drug work or from arson samples submitted by other jurisdictions.
- Location of the laboratory. Proximity is important for a number of reasons, not the least of which is the greater danger that the chain of custody will be broken in transporting samples to distant facilities.

- Turnaround time. Quick turnaround time can be crucial to investigation success. However, turnaround time seems to be a serious problem in many ACAP jurisdictions.
- Sensitivity of the equipment. Equipment varies widely in the sensitivity of the analysis it can perform.
- Extent of in-house library of standard samples. A library of accelerant standards is necessary for comparative analysis to identify conclusively the materials present in the debris submitted by investigators.
- Training of the chemist and lab technicians. Staff involved in analysis of fire debris should be trained in the latest techniques and the use of available equipment.
- Expertise of investigators in selecting and packaging samples. Investigators should select samples only from the promising areas of the fire scene and insure that they are properly packaged and preserved. Indiscriminate selection and improper packaging of samples can waste valuable laboratory resources and endanger case development.

Local jurisdictions may derive great benefit from coordinating their efforts with those of state and federal officials. The Bureau of Alcohol, Tobacco and Firearms has taken the most active role of the various federal agencies with jurisdiction over arson. A number of jurisdictions work closely with ATF agents. The FBI, IRS, postal service, and U.S. Attorney's Office also may be involved. State police, state fire marshals, investigators, and state attorneys general may also provide assistance to local efforts. (See Chapter Seven for a full discussion of the state role.)

Private investigators may be of great assistance to public officials in the investigation of arson. Private investigators, usually employed by insurance companies, have certain advantages, including the following:

- more selectivity in investigation and thus commitment of more resources to individual cases;
- ability to bring in more expert assistance and testimony;
- possibly easier access to the scene because of owner's need to cooperate with insurer in order to obtain claim payments; and
- greater access to Property Insurance Loss Register data (PILR is discussed more fully in Chapter Five).

On the other hand, public investigators have certain advantages, including easier access to firefighters and law enforcement officials and their records. One of the chief barriers to public-private cooperation is the

private sector's fear of lawsuits. Immunity laws may help to overcome this barrier, but they are not a panacea. More important in developing cooperative relations are informal personal arrangements and demonstrations of commitment and mutuality of interests.

Finally, it is crucial that resources be specifically allocated to arson investigation and prosecution. Without the specific commitment to arson, personnel and other resources in law enforcement agencies will constantly be diverted to other priorities which promise a more immediate payoff in terms of arrest or conviction. In fire departments, for example, there almost always is pressure to divert investigative resources to fire suppression.

Even within an active arson unit, if adequate manpower is not available, the easy cases will drain off the available investigative time and leave little or no time to pursue the more difficult arson-for-profit cases which may make up a substantial portion of the problem. A number of the ACAP jurisdictions have established well-functioning units whose manpower levels or very existence are jeopardized by the expiration of federal funding. If jurisdictions do not give these units the support they need, investigative capabilities may revert to their pre-ACAP levels. While the benefits of training and working relationships developed during the ACAP period may persist, it seems that major inroads into the arson problem require continued investigation of a large number of fires. Adequate manpower and resources are essential to accomplish this task.

Arson Prevention Measures

Effective arson control requires development and implementation of comprehensive prevention programs which address the underlying causes of the problem. In Chapter Four we discuss a range of strategies which may be included in a comprehensive arson prevention program and the elements which appear to contribute to the success of each strategy.

Neighborhood Self-Help and Revitalization: Urban arson is closely associated in a chain of causation with owners' "milking" of and disinvestment from properties, housing abandonment, and neighborhood decline. It may also be linked to "gentrification." Whether owners are actually responsible for setting fires or simply allow their buildings to be torched by occupants or vandals, the results are the same. Owners may benefit throughout the process from a combination of high rental income, low maintenance expenditures, property tax delinquency, income tax write-offs, exploitation of certain federal housing programs, profit from condominium conversions, and, of course, insurance proceeds.

Neighborhood self-help and revitalization programs may help to break this process. These programs are most effective if there is close cooperation within government and among government officials, community organizations, and individual citizens. The role of community organizations is particularly important. Such groups represent a potentially valuable resource to public arson investigators, but one which has, thus far, gone largely untapped.

Neighborhood self-help and revitalization programs might include the following strategies:

- Improved legislation and regulation

- improved code enforcement, including monitoring of problem properties;
- liens on insurance proceeds for back taxes, utility bills, and demolition costs;
- "rent-taking" programs in which tenants in buildings with back taxes due pay their rents to the city;
- accelerated tax foreclosure on deteriorated absentee-owned properties;
- reduction of income tax incentives associated with arson losses;
- more energetic action against "eviction fires" associated with condominium conversion and gentrification;
- curtailment of abuse of HUD's Section 8 Substantial Rehabilitation program; and
- passage and enforcement of more stringent ownership disclosure laws to curtail the use of "straw" ownerships and dummy corporations.

- Joint Community-Government Initiatives

- intelligence and monitoring activities, including block watches, arson patrols, and surveillance of at-risk buildings;
- rent escrow schemes enabling tenants to finance building improvements directly through their rent payments if owners refuse to carry them out;
- reoccupancy and/or alternative ownership strategies for abandoned buildings, which are preferable to demolition since they preserve the property and afford opportunities for more stable and responsible ownership and occupancy; and
- board-up/seal-up/demolition programs for exposed or abandoned buildings.

Insurance Initiatives: Although there is considerable disagreement over these matters, it has been argued that insurers contribute to arson-for-profit incentives by tolerating careless underwriting and claims investigation. Such practices permit unscrupulous owners to obtain coverage and collect claims payments far in excess of the actual value of the property. Higher policy values yield more premiums and thus increase companies' profits and brokers' commissions. At the same time, fire claim losses may be passed on to consumers in higher premiums. Moreover, companies are often able to minimize their risk through reinsurance.

Possible solutions to underwriting problems include:

- more comprehensive applications for insurance coverage;
- more frequent inspections of properties both prior to initial coverage and upon application for policy renewal;
- more careful consideration of actual property values in evaluating coverage levels;
- careful study of the relationship between reinsurance and lax underwriting policies; and
- efforts to curtail overinsurance by surplus lines carriers.

Possible solutions to claims investigation problems include:

- closer cooperation and more extensive information exchange between insurance companies and public investigators;
- more aggressive civil action by insurers to deny fraudulent claims; and
- better training for claims adjusters.

Programs for Juveniles: Juvenile firesetting in its various forms probably accounts for a substantial part of the arson problem. Strategies to address juvenile firesetting include:

- early identification of firesetting behavior;
- better screening, referral, and treatment of firesetters, including counseling and "big brother" programs;
- improved school education programs on arson; and

- removal of opportunities for firesetting, particularly by attacking the problem of building abandonment.

Public Awareness: Most arson public awareness campaigns have been linked to hotlines and reward programs. Although these strategies have been useful in some jurisdictions, they seem to have been of limited value in most ACAP jurisdictions in generating information useful to arson investigators.

The following elements seem likely to enhance the success of reward and hotline programs at reasonable cost:

- oversight of the program by a management committee;
- 24-hour hotline operations with live respondents and caller anonymity;
- sufficient reward funds to induce response;
- advertising and publicity designed to reach and cover the identified target audience; and
- aggressive pursuit of private sources of funding for publicity and rewards, as well as free advertising and publicity.

If jurisdictions continue to derive limited benefit from hotline and reward programs, consideration should be given to dropping these components. The funds could then be spent in alternative ways such as paying informants, hiring additional investigators, or conducting general public awareness campaigns directed toward raising public consciousness about arson and encouraging support for anti-arson efforts.

Information Systems Relevant to Arson Control Programs

Information systems can play a vital role in the fight against arson. Such systems may be manual or computerized and may serve one or more of the following purposes:

- facilitate greater understanding of the nature and extent of the arson problem;
- help to identify resource needs and manage the investigative unit;
- identify arson suspects;

- identify likely targets before arson occurs;
- guide the selection of anti-arson strategies; and
- help evaluate the effectiveness of previously selected strategies.

In Chapter Five, we review various information systems that contribute to the arson control effort in quite different ways.

Fire incident systems are capable of describing the extent and, to some degree, the nature of the fire problem in a community. However, if these systems are to be useful in describing the arson problem, good fire investigation is required and the systems must be updated to reflect the outcomes of these investigations.

The National Fire Incident Reporting System is a local, state, and national fire incident system. As more and more fire departments participate in the system, it will become increasingly useful for assessing the nature and extent of the national arson problem, particularly if the 904 Standard for investigative reports recently adopted by NFIRS is put into general use. As discussed in Chapter Seven, NFIRS can serve as the tool for statewide management of the arson problem. Quite apart from any application in the area of arson, NFIRS makes possible, for the first time, comprehensive longitudinal and cross-site statistical studies of factors related to fire rates and can be used effectively to target resources.

Investigative information systems are the most important type of information system related to arson control. Investigative information systems make a vital contribution to the apprehension of arsonists and provide the information needed to plan a broad arson control strategy that encompasses prevention as well as enforcement activities. We believe that investigative information systems are extremely important; thus, in Appendix C of the report we have proposed and described in detail a manual investigative information system. This system is a composite of the best elements we found in the ACAP sites and other jurisdictions.

Police field incident systems serve the entire police department in much the same way that investigative information systems serve the fire investigation unit. These two information systems can support each other in several ways, whether the fire investigation unit is located in the fire or police department: the investigation unit can provide data, particularly on offenders, to the police system; personnel operating the police system can offer technical assistance in the operation of the investigative system; and the police system may be able to carry out some of the functions of an investigative information system. Under some circumstances, a police field incident system might be able to provide all of the services of an investigative information system, thereby making a separate system unnecessary. However, it is likely that the degree of control that the investigation unit achieves by operating its own system will outweigh any increased sophistication or cost saving achieved by having another agency operate a system for them.

The Property Insurance Loss Register (PILR) is potentially a very powerful tool for identifying suspicious fires through linkage to previous fires. This potential will be realized, however, only if participating insurance companies induce their adjusters to file a complete report to PILR, including the names of all parties to the loss, such as business associates and attorneys of the insured party, mortgage holders, and repair contractors. A second problem relates to law enforcement authorities gaining access to the output from the PILR system. A recent Illinois statute may provide a solution to this problem, however, by requiring that PILR provide a copy of any reports produced by the system for claims filed in that state to the state fire marshal for dissemination to cognizant local investigative agencies.

The recent addition of arson to the list of Part I offenses reported under the Uniform Crime Reports program will soon provide data on the incidence of arson in almost every community in the United States. However, the difficulty of detecting arson, problems in defining arson, and the difficulty involved in gathering data from a number of disparate organizations may limit the quality of these data. Further experience will determine whether the FBI will be able to overcome these obstacles.

Early Warning Systems identify buildings that are likely to become targets of arson. These systems differ in terms of the degree of computerization of the data collection process, the cost per building researched, and the potential accuracy of prediction. In order to develop the political support needed for local funding of such systems, they should first be shown to be effective. Some of the federal money being devoted to technical development of such systems should probably be devoted to evaluating their effectiveness.

In general, we have observed that information systems are very costly to operate and that successful systems tend to serve the vital interests of the organization that operates them. The National Fire Incident Reporting System and the reporting of arson as a Part I offense through the Uniform Crime Reports will both help to provide better data on the nature and extent of the national arson problem. However, neither of these systems can capture a true picture of the problem without accurate detection of arson by local personnel and accurate data on arson motives.

The Arson Task Force

Arson task forces can serve a number of important purposes in the design and implementation of effective, coordinated anti-arson programs. These roles, which are discussed in Chapter Six, may be summarized as follows:

- Coordination. Anti-arson efforts require the cooperation of numerous agencies, organizations, and individuals. The arson task force can facilitate coordination among fire and police departments; prosecutors' offices; insurance

companies; local, state, and federal authorities; municipal authorities responsible for housing code inspection and enforcement, property records, and the like; and neighborhood organizations.

- Problem analysis and planning. The arson task force may be helpful in ensuring that a systematic analysis of the nature and extent of the arson problem is conducted. It may also sponsor an examination of current arson control efforts as a baseline for planning.
- Public awareness. The creation of an arson task force and associated public awareness activities can serve as a deterrent to arson, assist in arson enforcement activities by providing information on suspicious fires, and help build a constituency for anti-arson legislative efforts and/or additional resources.
- Resource acquisition. The arson task force can serve as a medium through which external resources can be channeled to enhance the community's arson control efforts. Possible sources of funds include federal grants, local businesses, and insurance companies.

In deciding how to organize a community's task force, a number of factors must be considered. One of these is formalization. None of the task forces we visited were formally authorized by city or county council resolution or executive order. In some cases, creation of the task force was formally announced to the media, but in most, letters were simply sent to request the participation of designated members.

The informal nature of the ACAP task forces appears to have been partly due to the assumption that they would have a limited life span. This was true particularly in those jurisdictions where the task force had a specific goal to accomplish or where it was established as a supervisory body to oversee the ACAP grant. A second reason that task forces did not operate under formal procedures relates to the kinds of decisions they were called upon to make. Few of these decisions involved the actual expenditure of funds, except where ACAP grant funds were shifted from one category to another and required task force approval. If an arson task force is to undertake a longer-term approach to problem analysis and specific resource allocation, it should probably be structured and operated on a more formal basis. Voting members should be clearly identified, a quorum established, and procedural rules adopted.

Another issue to be considered in forming an arson task force is sponsorship, i.e., under whose authority should the task force be created and operated? Among the ACAP jurisdictions, sponsoring agencies included mayor's offices, fire departments, local planning commissions, and criminal justice councils. In determining which agency should sponsor the arson task force, at least three criteria should be taken into account:

- the ability of the agency to commit the resources demanded of sponsorship;
- the "power of the office" to secure cooperation and action from all sectors of the community and government; and
- the "political neutrality" of the agency.

A third issue which must be addressed in forming an arson task force is the body's membership. Clearly, the sponsoring agency, the fire and police departments, and the prosecutor's office should be included. Representation of the insurance industry is also recommended to facilitate private-public coordination. In jurisdictions where arson is believed to be connected with neighborhood deterioration and housing abandonment, municipal agencies with responsibilities for property code enforcement, taxation, housing, and urban development; lending institutions; and neighborhood organizations may be added. Other entities represented might include state, county, and federal authorities. In general the membership should include representatives from all affected agencies and jurisdictions.

Members' ranks or positions should also be considered. Some argue that only top-level administrators should be included if a task force is to deal with matters of policy, since only such administrators are empowered to make significant decisions involving the commitment of personnel or other resources. One counterargument, which draws some support from our examination of the ACAP jurisdictions, is that top-level officials often have little time to attend task force meetings with any regularity. A second counterargument is that interest and expertise in arson control matters reside primarily at mid-management levels. In the final analysis, the presence of a "driving force" in a position of authority may be the most important ingredient for an effective arson task force.

A final consideration in developing an arson task force is its organization. A common approach in the ACAP jurisdictions was to organize the task force into subcommittees dealing with such topics as insurance, public awareness, juvenile arson, and legislation. A second approach which was not employed in the ACAP sites would be to appoint a steering committee to develop agendas and specific proposals for full task force meetings.

The Role of the State in Arson Prevention and Control

Although arson is fundamentally a local problem and anti-arson programs are largely the province of local authorities, state government can play an important role by supporting local efforts and providing statewide coordination. In Chapter Seven we discuss a number of actions states may take to fulfill this role. This discussion suggests a number of key elements for successful state anti-arson programs.

The first of these is a comprehensive legislative and regulatory framework governing both the civil and criminal aspects of arson control. Key areas of legislation and regulations include:

- arson penal law with adequate coverage of arson for profit;
- local reporting of fire and arson incidents;
- reporting and immunity laws to facilitate exchange of information between insurers and public officials;
- insurance regulations and procedures which facilitate effective underwriting and claims investigation; and
- clearly defined authority for state investigative and prosecutorial agencies to provide assistance to local agencies.

States can also play a vital role by conducting a statewide needs assessment. Such an assessment can be of assistance to localities in managing fire service and arson investigation units. It is also a useful tool in assuring that state assistance in investigation and prosecution is tailored to local needs and capabilities. The key to such an assessment is a centralized data system based on local authorities' reporting fire and arson incidents to a designated state agency. There should be inducements to localities to make timely, complete, and accurate reports--e.g., provision of data tabulation analysis to each jurisdiction and technical assistance in reporting procedures. The centralized system should provide data on the nature and extent of arson incidence statewide. Other elements of the needs assessment process include:

- an assessment of local investigative and prosecutorial capabilities and local receptivity to state assistance;
- an assessment of state investigative and prosecutorial capabilities;
- a carefully designed plan for targeting available state resources to supplement local efforts in the areas most in need of assistance; and
- coordination of regional or county investigative units and other programs as necessary and appropriate.

State investigative services should be tied to the results of the needs assessment. They should be developed with sensitivity to local attitudes toward state involvement--e.g., "turf issues" and "home rule" traditions. They should also be based on clearly defined and well documented

procedures for providing state assistance to localities, including use of designated local liaisons where appropriate.

Two types of services might be offered:

- general investigation: fire scene examination, cause-and-origin determination, general follow-up investigation; and
- specialized services: services which some localities cannot provide or which may be more cost-effectively provided at the state level--e.g., "paper chases," accountant services, intelligence, assistance with multi-jurisdictional and organized crime cases, civil matters such as housing code enforcement and tax arrearages, laboratory services, and expert assistance and testimony.

The particular method of involvement should be appropriate to the considerations discussed above. There are two basic approaches:

- proactive involvement: unilateral state involvement based on fire pattern analysis or independent source information; and
- reactive involvement: state involvement upon local request.

State prosecution services should also be based on identified needs and capabilities and have the following attributes:

- clearly defined and documented policies and procedures governing state involvement in arson prosecution--e.g., division of local-state responsibility for various types of cases such as those with multi-jurisdictional or organized crime aspects, and criteria and procedures for state supervision of local prosecutors;
- assistance to local prosecutors according to these policies and procedures; and
- innovative prosecutorial approaches, such as civil enforcement strategies and provision of legal advice on arson cases to local prosecutors.

Technical assistance and training is another area in which states can play a role. A program of services and instruction most cost-effectively and appropriately provided at the state level might include informal advice to

local investigators and prosecutors, with state agencies serving as clearing-houses for information. States may also develop and offer standardized training programs.

There are also many ways in which state organizations, agencies, and officials can provide general leadership. These include:

- the state fire marshal playing a strong role in orchestrating an aggressive state investigative effort;
- the state arson task force working to develop state anti-arson programs and generate support and publicity for their implementation;
- high state officials publicizing anti-arson programs through speeches and press conferences, backing legislative and regulatory initiatives, and actively supporting the funding of state anti-arson programs; and
- the state providing financial assistance to local anti-arson efforts as feasible and appropriate.

Lessons Learned from ACAP

A number of lessons have emerged from the ACAP experience which may be useful in designing future federal anti-arson initiatives. The available data are too incomplete and flawed to permit conclusive judgment as to whether the program achieved its goal to "reduce the number of deaths, the personal injury and the economic loss related to arson in the grantee jurisdiction[s]." However, ACAP money has enabled many jurisdictions to create investigative units or augment existing investigative staff, establish specialized arson prosecution, and purchase sophisticated new equipment for on-site detection of arson and laboratory analysis of fire debris. These improvements may lead, in time, to a reduction in the incidence and cost of arson in these jurisdictions. Moreover, it seems clear that ACAP funding has helped to "upgrade current knowledge regarding arson incidence and arson control approaches." Throughout this report we cite examples of the use of ACAP funding to initiate or enhance ongoing efforts in the areas of arson detection, prevention, and enforcement.

As discussed in Chapter Eight, the solicitation for ACAP applications focused on broad goals rather than specific strategies. It required evidence of interagency cooperation within applicant jurisdictions as a selection criterion while also anticipating that grant funds would be used to achieve such cooperation. As a result of the nature of the solicitation and of the rapidity of the awards process, many applications were fairly general and were not based on a thorough assessment of the jurisdictions' arson problems and resource needs. Furthermore, grant activities could have benefitted from ongoing technical assistance and support from federal officials to refine and focus their design.

A two-stage grant application process might remedy many of the problems which arose during the ACAP program. By dividing the grant process into two stages--planning and action--the agency could allocate funds in a more rational and cost-effective way. During the planning stage, grantees could analyze the nature and extent of arson in their jurisdictions and develop strategies to respond to these problems. These strategies and the corresponding needs assessment could be developed into full applications for further funding. Under this process, the funding agency would be able to target grants toward priority areas such as neighborhood revitalization strategies involving community groups and development of information systems relevant to arson control. Ongoing technical assistance to grantees would be an integral part of this approach.

Technical assistance on a national level may serve the purpose of broadening the range of strategies available to each jurisdiction by allowing them to benefit from what others have learned. The exchange of information could be extended beyond the period of the program by including a technology transfer requirement in all grants. One way to do this would be to require reports--either produced by the grantees themselves or by contractors--on the strategies and activities of each project, stressing outcomes, results, and factors associated with success and failure. Such reports could be extremely useful to other jurisdictions interested in developing or enhancing arson control programs. In general, they would contribute to an ongoing dissemination of information on the state-of-the-art in arson control.

The ACAP concept of providing funds for locally developed anti-arson programs appears to be basically sound. With modifications such as those proposed in Chapter Eight, a future program might have even more chance of success in the continuing fight against a very serious criminal and social problem.

CHAPTER ONE
INTRODUCTION

In recent years there has been increased federal interest in the crime of arson. According to the U.S. Fire Administration, "The principal role of the Federal agencies in arson prevention and control is to support, assist, and as necessary, supplement State and local agencies which have the primary responsibility for arson mitigation." The Law Enforcement Assistance Administration (LEAA) launched its first major anti-arson funding initiative in January 1980, awarding 34 grants totalling over \$9 million to states and localities under the Arson Control Assistance Program (ACAP). The stated objective of the program was:

. . . to assist state, regional, county, and local efforts to reduce the number of deaths, the personal injury, and the economic loss related to arson, and to upgrade current knowledge regarding arson incidence and arson control approaches.²

Speaking to the latter part of this objective, LEAA awarded a grant to Abt Associates Inc. of Cambridge, Massachusetts to conduct an evaluation of ACAP. This report is the product of that study.

While initially conceived as an evaluation of the ACAP projects intended to help inform future federal anti-arson funding, our study soon assumed a broader character. Rather than focus solely on the impact of ACAP-funded strategies in the grantee jurisdictions, we were asked to draw on the ACAP experience to produce a report for state and local officials who wished to enhance arson control capabilities in their jurisdictions. Consequently, the scope of our study was broadened to include a range of arson control strategies beyond those implemented in the ACAP projects.

Before describing the study's specific objectives and methodology, we provide an overview of the ACAP program and the grantee jurisdictions.

1.1 Overview of the Arson Control Assistance Program

The Arson Control Assistance Program was conceived within LEAA's Office of Criminal Justice Programs as a discretionary program, authorized under part E

¹U.S. Fire Administration, Federal Emergency Management Agency, Report to the Congress: Arson--The Federal Role in Arson Prevention and Control (Washington, D.C.: Government Printing Office, August 1979), p. 11.

²Final announcement for the Arson Control Assistance Program, Arson Unit, Office of Criminal Justice Programs, Law Enforcement Assistance Administration (July 27, 1979), p. 2.

of the Justice System Improvement Act.¹ While this legislation did not specifically require the funding of programs for the control of arson, it did mandate a report from LEAA's administrator that would " . . . indicate whether grants made to states or units of local government under parts D, E, and F have made a reasonably expected contribution toward . . . combatting arson."²

The Arson Control Assistance Program was the largest of several LEAA funding initiatives against arson that together constituted a comprehensive LEAA package for arson control assistance. This package also included reimbursible agreements between LEAA and:

- the U.S. Fire Administration (USFA) for training in
 - arson detection
 - arson investigation
 - arson prosecution
 - arson prevention efforts of volunteer fire departments
 - establishment of arson task forces;
- the Federal Bureau of Investigation (FBI) for
 - nationwide arson seminars
 - a national arson symposium
 - a laboratory examiners seminar;
- the Bureau of Alcohol, Tobacco and Firearms (ATF) for a training curriculum on arson-for-profit investigation, and the delivery of this training program; and
- the Bureau of Justice Statistics, to provide grants to state agencies for the purpose of upgrading the Uniform Crime Reports (UCR) capabilities to accommodate the new reporting requirements for arson.

The services under these reimbursible agreements were not specifically designed to meet the needs of the ACAP grantees, but were available to any jurisdiction that expressed an interest in participating.

As stated above, the overall objective of ACAP was to help state and local governments reduce arson losses, including loss of life, serious injury, and property damage. ACAP planners set forth 13 results sought by

¹Justice System Improvement Act of 1979, P.L. 96-157, December 27, 1979, United States Code, 96th Congress, First Session 1979.

²This was one of 18 areas in which LEAA was to report results over a three-year period. See Justice System Improvement Act of 1979, Section 816(b)(4), December 27, 1979.

the program which they believed would contribute to the attainment of this objective:

- (a) improved capabilities of agencies involved with arson control at the state, regional, county, and local levels;
- (b) increased cooperation among those agencies involved with arson detection, investigation, prosecution, prevention, and education/training;
- (c) increased coordination of anti-arson efforts within the given jurisdiction;
- (d) increased sensitivity on the part of all involved agencies to the problem of arson and to the roles of all those engaged in combatting the crime;
- (e) improved data base and analytical capability regarding arson;
- (f) increased identification of arson fires;
- (g) increased arrest rates for arson cases;
- (h) increased prosecution rates for arson cases;
- (i) increased conviction rates for arson cases;
- (j) increased level of public awareness and participation in arson control efforts;
- (k) increased involvement on the part of the judiciary, the insurance industry, community groups, and others with interest in arson control;
- (l) reduction of profit motive associated with arson; and
- (m) increased exchange of information.

In short, these results were specified in response to a perceived need for training, data systems, equipment, manpower, and a framework for a coordinated arson control effort at local, county, regional, and state levels of government.

While the overall program objective and the results sought were clearly stated by the funding agency, the design or choice of specific strategies was left entirely to the discretion of program applicants. The only requirement was an assurance of cooperation and coordination ". . . among police, fire and prosecutorial agencies as well as others in a given jurisdiction with an interest in arson control . . ." ² In other words, program applicants were left to

¹ Final Announcement of ACAP, pp. 2-3.

² Ibid., p. 3.

decide how best to meet their perceived needs with ACAP grant funds. ACAP was clearly oriented toward goals rather than methods.

A closer analysis of the 13 results sought by ACAP provides the beginning of a structure for arson control measures that program applicants needed to consider in developing their grant applications. ¹ Items (f) through (i) call for a more effective enforcement response to arson. The underlying assumption is that increases in the perceived risk of detection, apprehension, prosecution, and conviction would serve as a deterrent and thereby contribute to a reduction in arson losses. Items (b), (e), (d), and (m) deal directly with the issue of cooperation and coordination as a means of enhancing arson control efforts. The inclusion of items (j), (k), and (l) indicate the expectation that participating jurisdictions would involve both public and private sectors in these efforts. The improved data base and analytical capability cited in item (e) refers to both operational information (such as arson "intelligence") and management information needs. Finally, item (a) addresses the general need to improve arson control capabilities.

A total of 34 grants were awarded under the Arson Control Assistance Program. ² These grant recipients can be characterized in several ways:

- according to the unit of government to which the grant was awarded, i.e., the city, county, or state responsible for providing the grant matching funds;
- according to the implementing agency, i.e., the agency with which the project director--as the specific individual responsible for managing the grant--was affiliated; and
- according to the area benefitting from grant-funded resources or activities. (This generally encompassed an area larger than the recipient jurisdiction.)

¹ Arson "control" measures were defined in the program announcement to include, but not be limited to, detection, investigation, prosecution, prevention, and public education. While some distinguish between control and prevention activities, we will use "arson control" to refer to the full range of anti-arson activities. "Enforcement" (detection, investigation, and prosecution) will be used to designate post-fire efforts to bring arsonists to justice, while "prevention" will be used to designate efforts to eliminate the causes of arson.

² Because the Arizona State Justice Planning Agency provided for its own "intensive" evaluation of the Arizona project, that project was excluded from the scope of our study.

Of the 34 grants, nine were awarded to states, six to counties, and 19 to cities. The grant amounts (including match) ranged from \$31,257 (Jersey City) to \$1,060,395 (State of Connecticut). The median award to states was \$536,899; to counties, \$173,917; and to cities, \$152,896.

Recipient jurisdictions, implementing agencies, and total grant amounts are summarized in Table 1.1. The implementing agency in most cases was a fire service agency. Among city grantees, 74 percent of the implementing agencies were fire departments (14 of 19), while 16 percent were police departments (3 of 19). The Board of Fire and Police Commissioners was the implementing agency for the Milwaukee grant. The grant to the City of Syracuse was co-directed by the Director of Special Projects at the City Office of Federal and State Aid Coordination and an Assistant District Attorney at the Onondaga County District Attorney's Office. While several recipient jurisdictions identified different lead agencies for different aspects of their grants, the Syracuse grant was the only one in which co-directors of the grant were formally designated.

The prosecutor's office was the implementing agency for half of the county recipients. The implementing agency for the Metro-Dade county grant was the criminal justice planning agency that jointly serves Dade County and the City of Miami. The other two county grants were implemented by a sheriff's department (Broward County, Florida) and a county fire marshal's office (Snohomish County, Washington), respectively.

Three state level grants were implemented by Attorney General's Offices, three by State Fire Marshal's Offices,² two by state justice planning agencies, and one by a state department of law enforcement.

Two of the states--Connecticut and Maryland--awarded subgrants to local units of government. Connecticut awarded five subgrants, all in the amount of \$32,000, to Hartford, New Haven, Stamford, Waterbury, and Enfield for the creation of local arson "strike forces" consisting of fire, police, and prosecution personnel. These subgrants accounted for approximately 15 percent of Connecticut's ACAP grant. Approximately 75 percent of Maryland's grant was awarded as subgrants to Anne Arundel County, Annapolis, Baltimore City (two subgrants), Baltimore County, Hagerstown, Montgomery County, and Prince Georges County.

Because there were no specific programmatic elements that applicants were required to include in their proposals, grant funds were typically used to fill gaps, or otherwise enhance pre-existing arson control efforts. ACAP funds were budgeted for investigative and prosecutorial personnel, training,

¹ The cash match requirement for ACAP grants was ten percent.

² While the State Fire Marshal was designated as project director for the Maryland grant, the Governor's Commission on Law Enforcement and the Administration of Justice (the state justice planning agency), was--for reasons explained below--the implementing agency for the Maryland grant.

Table 1.1

RECIPIENT, IMPLEMENTING AGENCY, AREA SERVED, AND AWARD AMOUNT OF GRANTS UNDER THE ARSON CONTROL ASSISTANCE PROGRAM

RECIPIENT	IMPLEMENTING AGENCY	AREA SERVED	TOTAL BUDGET (including match) ^a
CITIES			
Wichita, KS	Fire Department	Wichita & Sedgwick County	\$ 316,510
Newark, NJ	Fire Department	Newark	222,222
San Francisco, CA	Fire Department	San Francisco	216,222
Dayton, OH	Fire Department	Dayton & Montgomery County	213,769
Milwaukee, WI	Board of Fire & Police Commissioners	Milwaukee & Milwaukee County	212,222
Syracuse, NY	City Office of Federal & State Aid Coordination/Onondaga County District Attorney's Office	Syracuse, Onandaga County, & nearby areas	201,843
Omaha, NE	Fire Department	Omaha	200,000
Kansas City, MO	Police Department	Kansas City	180,425
Springfield, MO	Fire Department	Springfield	172,086
Houston, TX	Fire Department	Houston, Harris County, & 7 surrounding counties	152,896
Tucson, AZ	Police Department	Pima, Cochise & Santa Cruz Counties	152,400
North Las Vegas, NV	Fire Department	North Las Vegas & Clark County	128,497
Norfolk, VA	Fire Department	Norfolk & Tidewater Area	120,986
Lynchburg, VA	Fire Department	Lynchburg & 4 counties & 5 towns	114,562
New Albany, IN	Fire Department	New Albany	113,220
Bolingbrook, IL	Fire Department	Bolingbrook & Will County	105,312
Sioux City, IO	Police Department	Sioux City & border towns	79,774
Columbus, GA	Fire Department	Columbus & Muscogee County	71,137
Jersey City, NJ	Fire Department	Jersey City	31,198
COUNTIES			
Salt Lake County, UT	County Attorney's Office	Salt Lake County	\$ 222,222
Metro-Dade County, FL	Office of Dade-Miami Criminal Justice Council	Metro-Dade County	219,122
Snohomish County, WA	County Fire Marshal's Office	Snohomish County	184,789
East Baton Rouge Parish, LA	District Attorney	East Baton Rouge Parish	163,045
Broward County, FL	Sheriff's Office	Broward County	120,105
Middlesex County, NJ	Prosecutor's office	Middlesex County	95,643
STATES			
Connecticut	Connecticut Justice Commission	Connecticut	\$ 1,060,395
Massachusetts	Attorney General's Office	Massachusetts	666,667
New Jersey	Attorney General's Office	New Jersey	659,157
Maryland	State Fire Marshal's Office	Maryland	558,167
Illinois	Illinois Department of Law Enforcement	Illinois	536,899
Delaware	State Fire Marshal's Office	Delaware	534,969
Florida	State Fire Marshal's Office	Florida	458,824
Arizona	Arizona State Justice Planning Agency	Arizona	416,424
Rhode Island	Attorney General's Office	Rhode Island	386,121

^a Cash Match requirement was ten percent.

\$9,287,230

equipment, public awareness campaigns, and information system development. No clear-cut patterns emerged in recipients' use of ACAP funds across these budget categories, even within city, county, or state groupings. In short, ACAP funds were allocated according to recipient perceptions of where the need was greatest.

1.2 Study Objectives and Methodology

As noted above, the original goal of the evaluation was to assist in future decisions on the most effective expenditure of federal arson control funds. The focal point of our original proposal was a reporting system for the collection of case level data that we would analyze to assess the projects' impact on arson incidence and its consequences, and on the jurisdiction's arson control capabilities.

However, due primarily to the phase-out of LEAA, there was a major change in the goals of the study. This was essentially a shift away from the question of how federal funds can be most effectively spent against arson and toward the broader mandate of identifying strategies (whether or not funded under ACAP) that appear to be effective with respect to:

- the abatement of arson and its consequences;
- improved detection and stronger criminal justice system sanctions;
- enhanced capabilities and involvement of public and private interests;
- greater cooperation and coordination.

Simply stated, the study reported on here was neither a project-by-project evaluation of ACAP recipients nor a program-level evaluation of ACAP. The goal of the study was to compile into a single volume current information on arson control strategies, how well they seem to work, and under what circumstances "success" with these strategies is most likely. Moreover, from these findings we attempt to distill "key elements for success" in various arson control strategies.

Drawing on the experiences of jurisdictions participating in ACAP (and some non-ACAP jurisdictions), as well as information obtained from experts in various aspects of arson control and current literature, the study is designed to serve the information needs of those contemplating new initiatives against

arson and those seeking to improve existing arson control efforts. Consequently, our report has been written for a diverse audience. The audience includes all those who manage or administer arson control programs or who have responsibility for allocating resources for arson control--fire, police, and prosecuting authorities; local and state elected officials with legislative or administrative responsibilities; appointed managers and administrators, such as city managers and housing officials; insurance officials; and community organizations. Because the intended audience is so diverse in its knowledge of arson control issues, we have written the report assuming little prior knowledge of the field. As a result, some material may appear obvious to some readers. We have attempted to be very inclusive and thus would urge readers to be selective.

Our first task was to identify and characterize the arson control strategies to include within the scope of the study. Since ACAP jurisdictions were not required to implement any particular measures, we relied on the literature, conventional wisdom, and the ACAP grant applications to compile a list of strategies, involving both actions and resources, that might be brought to bear against arson.

Hard outcome data were not yet available for the immediate pre- and post-grant periods in the vast majority of ACAP sites. As a result, we were unable to measure with precision the impact of particular strategies on arson incidence or on arrest and conviction rates. Thus, we compiled detailed process and qualitative outcome data on the identified arson control strategies. We used on-site and telephone interviews, project documents, and current arson control literature. The information gathered was analyzed toward the development of themes that seemed to be common to many jurisdictions.

Preliminary site visits were made during July and August 1980 to 13 of the 33 ACAP jurisdictions under study. Among the variables that were considered in deciding which projects to visit were:

- stated project goals;
- action strategies planned;
- type of service area (urban versus rural);
- organizational context;
- prior experience with arson control and innovativeness of proposed programs; and
- geographic location.

Our goal was to select a group of projects that would both provide diversity and information of maximum utility to non-ACAP jurisdictions. The screening criteria were applied so as to include as much variation as possible. Sites were selected to incorporate the greatest number of possible action strategies. Similarly, we chose both urban and rural service areas and jurisdictions where arson investigation was organized in different ways. Where more than one jurisdiction fulfilled a requirement, the choice was based on prior experience with arson control efforts and innovativeness of particular arson control program elements.

The site visit sample was not intended to be statistically "representative" of the universe of 33 projects. It included 55 percent of all grantees (18 of 33), nine city recipients (47 percent), five county recipients (83 percent), and four state recipients (50 percent). Table 1.2 lists the 18 recipients included in the preliminary site visit sample, by recipient agency.

The primary purpose of the preliminary site visits was to assess the total arson control effort of each jurisdiction or group of jurisdictions and to identify for further study the strategies with the greatest potential. Information about each strategy was gathered in interviews with fire, police, and prosecution officials, laboratory personnel, other city and state officials, representatives of the insurance industry, the banking and finance community, the business community, neighborhood groups, and others. These interviews were conducted by three-person teams experienced respectively in fire and arson investigation, the criminal justice system, and arson prevention strategies. The information obtained in the preliminary site visits indicated that most grantees were in advanced stages of planning, or had early experience with implementation, but that many arson control efforts were not yet fully operational. However, the preliminary site visits were extremely valuable in helping us to focus our research questions. The findings from these visits led us to concentrate further study on the following issue areas:

- the importance of compilation and utilization of arson data in devising arson control strategies (Chapters Two and Five);
- investigation and prosecution of arson, particularly issues in management and organization (Chapter Three);
- arson prevention, including public awareness campaigns (Chapter Four);

¹ The topic agendas for these interviews are reproduced in Appendix B.

Table 1.2
PRELIMINARY SITE VISIT SAMPLE

City	County	State
Newark	Salt Lake County	Connecticut
San Francisco	Metro-Dade County	Massachusetts
Dayton	Snohomish County	New Jersey
Milwaukee	East Baton Rouge Parish	Rhode Island
Kansas City	Broward County	
Houston		
North Las Vegas		
Norfolk		
Lynchburg		

- the arson task force (Chapter Six); and
- the state role in arson control (Chapter Seven).

Follow-up visits were conducted in March and June 1981 in the 13 sites that appeared to offer the greatest potential insight in these issue areas. Questions were designed to probe in each area, giving particular attention to the influence of a particular set of circumstances in each site on the planning, implementation, and outcome of arson control strategies. Follow-up telephone interviews were conducted in the other five sites to gather additional information on strategies that had not yet been implemented as of our preliminary visits.

Additionally, a site visit was made to Baltimore City, one of seven local subgrantees under the Maryland grant, to gather information about its arson task force. This visit was prompted by phone interviews with Baltimore City officials and an examination of task force meeting minutes which indicated a high level of participation and activity.

To gather information on projects not visited on either round, telephone interviews were conducted with the ACAP project director or other contact person, as well as other officials they suggested. Information on arson control strategies and background characteristics of these recipient jurisdictions was obtained during calls made in January and February 1981, approximately one year after most grants were formally awarded. Of the 15 jurisdictions not visited, four were states, one was a county, and ten were cities. The seven local jurisdictions receiving subgrants from the Maryland Governor's Commission on Law Enforcement and Criminal Justice (the ACAP grantee) were also included in this effort, as were the five local demonstration subgrantees of the Connecticut project. A second round of phone calls, and in one case a written questionnaire, was undertaken to clarify initial responses or to ask additional questions in some topic areas.

Because the objective of our study was to produce a composite report on a broad range of arson control strategies, the scope of our research extended beyond information concerning the ACAP jurisdictions. Other sources of information used in the study fell into three major categories:

- non-ACAP jurisdictions with particularly promising arson control strategies such as early warning systems. (It should be noted, however, that we did not contact all jurisdictions with innovative and/or effective arson control programs);
- experts on arson related subjects such as abandonment prevention, neighborhood revitalization, and fire and arson information systems; and

- current literature on arson prevention issues, training, prosecution, and other relevant subjects.

Drawing on the ACAP site-specific information and these other sources, we have attempted to develop a report that will be of general utility to the audience groups specified earlier in this chapter. For readers interested in the activities of particular ACAP grantees, or in contacting jurisdictions experienced in particular strategies, we have included individual project summaries for all ACAP grantees (see Appendix A). These summaries are drawn from information collected in site visits and telephone interviews. Since the activities undertaken in state projects differed substantially from those in county and municipal projects, we developed two standard formats for the summaries.

1.3 Guide to the Report

The body of the report is organized into seven chapters. Chapter Two deals with the nature and extent of arson. While there is some overlap, Chapter Three deals mainly with investigation and enforcement strategies, while Chapter Four examines primarily arson prevention strategies. More specifically, Chapter Three is concerned with strategies aimed at bringing the arsonist to justice, thereby deterring others who would commit the crime. By contrast, Chapter Four focuses on those strategies designed to attack the underlying causes of arson. Discussions of how these strategies are supposed to work, as well as ACAP experience with these strategies, are included in these chapters. The emphasis of these discussions is on management, rather than technology, since the ACAP program was built around the management issues of cooperation and coordination. Chapter Five describes the major types of information systems pertaining to arson control. The concept of the arson task force is the subject of Chapter Six.

Up to this point, the report deals largely with arson control issues at the local level. Chapter Seven draws on the experiences of the eight state-level ACAP grantees to examine the state role in the control of arson. Finally, in Chapter Eight, we present a number of conclusions and recommendations concerning ACAP as a federally funded program. Thus, this chapter addresses a central question that had originally been contemplated for the study: what lessons can be derived from the ACAP experience that will benefit possible future federal initiatives against arson?

CHAPTER TWO

NATURE AND EXTENT OF THE ARSON PROBLEM

An understanding of the nature and extent of arson is vital to the planning of new initiatives against arson.¹ As stated in the recent U.S. Fire Administration report to Congress, "Policy makers at all levels need reliable data on the incidence and causes of incendiary fires to formulate programs that effectively combat the arson problem, and to make informed decisions about resource allocation."

For purposes of this report, the extent of arson refers to such things as the number of arsons committed in a jurisdiction each year, the dollar loss due to arson, and the number of deaths and injuries caused by arson. The nature of the arson problem refers to the way in which the total arson problem is distributed along various dimensions, the most important of which is motive.³ Information on motive is especially crucial because by discovering why arsons occur, one is in a better position to stop them.

While most of the ACAP jurisdictions studied had accurate data on the incidence of arson, few, if any, had conducted a systematic analysis of the nature of their arson problem. Typically, jurisdictions do not possess the resources necessary to mount such an effort. Furthermore, many of the officials we interviewed felt that the impressions they had formed over time concerning the nature of the arson problem were sufficient to guide the planning of anti-arson initiatives. Nevertheless, based on our examination of the ACAP program, we believe that systematic analysis of both nature and extent data can be a useful tool in anti-arson planning efforts.

First, such analysis can help to prioritize use of existing staff and other resources. For example, if arson for profit constitutes a major portion of the arson problem, this may suggest targeting scarce prosecutorial resources on such cases. Moreover, such information can suggest increased efforts at coordination among various agencies and organizations. One may want to exchange intelligence with nearby jurisdictions and to work with insurance companies in order to identify possible suspects.

Second, such information may help to identify additional resources necessary to strengthen ongoing arson control efforts. To continue the above

¹The discussion in this chapter is most relevant to local arson control efforts. See Chapter Seven of this report for a discussion of state needs assessment issues.

²U.S. Fire Administration, Federal Emergency Management Agency, Report to the Congress: Arson--The Federal Role in Arson Prevention and Control (Washington, D.C.: Government Printing Office, August 1979), p. 13.

³Other dimensions include geographic area, time of day and day of the week when arsons occurred.

example, if arson for profit is a major problem, then the investigation unit might benefit from the addition of gas chromatographs in the arson laboratory, training in financial records research, and data systems to keep track of persons associated with past fires of suspicious origin. By documenting the incidence of this particular arson problem and the associated dollar loss in property (and taxes), one may be better able to justify increased expenditures for such purposes.

Finally, such information may suggest new arson control initiatives where none previously existed. For example, if one determines that the arson problem is caused chiefly by juveniles committing acts of vandalism, then initiatives such as curfews, juvenile counseling, recreation and education programs, and enhanced juvenile justice system prosecution may be warranted. On the other hand, if arson is fundamentally associated with neighborhood deterioration and abandonment due to deliberate "milking" by absentee owners/arsonists, then a number of actions may be required to reduce the profit motive and opportunity to commit arson. Such actions, including legislation, improved code enforcement, and use of community groups in the fight against arson, are discussed at length in Chapter Four of this report.

In the remainder of this chapter, we discuss the following issues:

- Why is it important to collect systematic information on the nature and extent of the local arson problem, and particularly on the motives for arson?
- What kinds of systematic information about the nature and extent of their arson problems do ACAP projects have now?
- How does the lack of systematic information on the nature and extent of arson affect comparisons among different jurisdictions?
- What can be done to gather systematic information on the nature and extent of the local arson problem?

2.1 The Need to Collect Systematic Information on Nature and Extent

The following anecdotes underscore the importance of gathering systematic information on the nature and extent of the local arson problem. In one large ACAP city, there is little disagreement about the seriousness of the arson problem, but a great deal of disagreement as to its causes. In conversations with the ACAP project director, several arson investigators, the county prosecutor assigned to coordinate arson prosecution, and the chief of the fire department, we were told that most arson is committed by juveniles and is largely a problem of vandalism. Spite and revenge fires are also considered to be common.

A coalition of neighborhood groups, however, believes that the entire focus of current anti-arson efforts in the city is mistaken. The community group believes that the arson problem is a byproduct of neighborhood decline and abandonment, caused largely by the unscrupulous activities of absentee landlords. Furthermore, they believe that once a building is run down or partially vacant, it makes little difference whether the owner himself arranges to have it burned, juveniles get in and burn it, or irate tenants set the fire. The root cause is the same.

The group is currently hard at work researching property, tax, and utility records in an effort to document the prevalence of arson for profit. They believe that the key to solving the problem is to crack down on the absentee owners--for tax arrearages, code violations, and, if possible, arson--and to pressure the city to demolish vacant buildings. Passage of legislation providing various disincentives, such as insurance cancellation on high-risk properties, is advocated as well.

The second anecdote concerns a project located in a county dominated by another major city. The supervisor of the arson squad, a senior arson investigator, and the chairman of the county arson task force were asked to name the type of arson that caused the most fires in the county and the type of arson that caused the greatest dollar loss in the county. Each had a different view of the most prevalent and costly type of arsons:

- for the investigative supervisor, juvenile vandalism;
- for the senior investigator, spite and revenge; and
- for the chairman of the task force, arson for profit.

Making decisions on how to allocate resources for the control of arson would seem difficult in the face of such variation in perceptions of the nature of the arson problem.

The third anecdote concerns the response of investigative supervisors in four ACAP jurisdictions to the following question, "In what way could you make use of accurate information on the percentage of arsons in your jurisdiction due to the following types of arson: arson for profit, juveniles, spite and revenge, and psychological disturbances?" Rather than answer the question, all four questioned the assumption that more accurate information would be helpful. All four of the investigative supervisors said that they already knew what the problem was in their jurisdiction. However, we found in two of these four projects that there were serious disagreements within the same project among investigators, investigative supervisors, task force chairmen, and prosecutors as to which of the types of arson cited in our question was the most prevalent.

¹Chapter Four includes a detailed discussion of the nature of the urban arson problem, its underlying causes, and strategies for combatting it.

The fourth anecdote concerns an ACAP project located in a suburb of a major city. Town officials believed strongly that juvenile firesetting was the major source of their arson problem. Consequently, the ACAP grant application proposed to spend the bulk of the funding on improvement of a juvenile firesetters' program. Some months after project start-up, it was realized that the juvenile problem was not the dominant cause of arson in the town. At this point, project activities had to be redirected.

These anecdotes highlight the need for systematic analysis of available data on arson causes. Below we describe some of the problems which may be associated with impressionistic information regarding the prevalence of arson motives.

2.2 Problems With Impressionistic Information on the Prevalence of Motives

Clearly, any analysis of the nature and extent of the arson problem must rely on the judgment of investigators to determine motive in individual cases. However, it is important that these judgments take into account all available information and that they be aggregated in a systematic fashion to construct accurate profiles of the nature of the local arson problem. For a number of reasons, we do not believe it is reasonable to expect investigators to produce an accurate estimate of the percentage of cases involving various arson motives relying on memory and subjective impressions.

In the first place, investigators face enormous caseloads and are very much overworked. Their primary problem is to process the mountain of cases that they are assigned. Furthermore, the amount of time spent in processing various types of cases may not be directly related to the property loss involved, since every case requires a certain fixed amount of effort. Thus, an investigator may spend one hour on each of 200 juvenile vandalism cases involving an average property loss of \$500 or less. He might also spend 50 hours on each of 3 cases involving arson for profit, with property loss for each estimated at \$100,000. It is almost inevitable that anyone performing the job of investigator under these circumstances would develop the impression that the primary problem is juvenile arson, even though the damage caused by the arson-for-profit cases was much larger (\$300,000 vs. \$100,000).

A second potential source of distortion derives from the failure to recognize and record multiple causes of arson. For example, in the northeastern city discussed above, the community group would most likely disagree with the investigators over the cause of a particular fire. While everyone might agree that juveniles lit the match that set the building on fire, the parties

¹One might argue that if the cost of moving firefighting personnel and equipment is added to dollar loss, the cost of many small fires might approach the cost of a few large ones.

would disagree as to the root cause of the arson in that particular case. The neighborhood group would argue that the landlord's "milking" of the property was the underlying cause of the problem, while the investigators may not go beyond the juveniles in attributing causation. The neighborhood group would further argue that remedies directed at juveniles would not solve the problem--if the juvenile had not torched the building, the landlord would have hired someone to do it. Because neither of the two causes in this example can be eliminated as a possibility, both should be considered possible motives. By failing to recognize the possible role played by landlords in the local arson problem, the investigators could underestimate the magnitude of the arson-for-profit problem.

A third problem stems from the fact that certain kinds of motives are easier to discover than others. For example, in spite-and-revenge arsons the owner or occupant of the burned building can very often report the motive and identify a suspect. On the other hand, in an arson-for-profit case, the owner or occupant will most likely pretend ignorance of motive or may suggest an incorrect motive to mislead the investigators. If impressions of arson motive are based entirely on cases where motive is known, investigators could easily be led to believe that spite and revenge is a more common motive than it actually is.

A final problem in understanding the nature of arson in the community is that correct motive is often not determined for certain arsons because limited resources are allocated to investigation. This is again primarily a problem in identifying arson-for-profit. The ACAP experience suggests that it is quite common for jurisdictions to feel that the expenditure of resources needed to carry out adequate "paper chases" during their investigations cannot be justified because, a priori, no arson-for-profit problem is perceived. Unfortunately, it may be difficult to identify an arson-for-profit problem unless paper chases are done in a substantial percentage of investigations. It appears that jurisdictions not doing an adequate paper chase cannot know how many fires of unknown cause are due to arson for profit. In addition, only one of several possible motives may be given, as in the example discussed earlier, where fires that might have involved arson for profit were attributed by investigators to juvenile vandalism alone.

These problems, and possibly others, can cause investigators to develop inaccurate impressions of the overall arson problem. What is needed are systematic ways of judging individual cases and aggregating individual judgments that avoid these perceptual problems. In the next section, we look at the kinds of systematic information available in ACAP jurisdictions on the nature and extent of arson.

2.3 The Availability of Systematic Information on Nature and Extent of Arson in ACAP Jurisdictions

This section deals with the availability of systematically-compiled information on the nature and extent of arson in the ACAP jurisdictions, and the use made of such information. We generally found respondents to agree with the premise that a systematic analysis of nature and extent is an important ingredient in the choice of prevention measures. However, such an analysis was given low priority by most of the enforcement personnel we interviewed, many of whom were struggling to meet basic manpower, equipment, and training needs.

The projects responded fairly well to the following questions about the extent of arson in their jurisdiction. "Do you have any estimates of how many local fires are incendiary, or estimates of what the local dollar loss due to incendiary fires is? If so, what are the estimates and how did you arrive at them?" A number of respondents provided counts of the frequency of arson and the total dollar loss due to arson. All respondents were able to describe the process they went through to get the numbers, which was, in all cases, to tabulate appropriate entries made in investigative reports.

The projects did not respond very well to our questions on the nature of the local arson problem. This question read: "Do you have any estimates of how much of the local arson problem is attributable to various motives? If so, what are the estimates and how did you arrive at them?" Only a few projects provided estimates, and these described their method for deriving these estimates as impressionistic rather than systematic.

In a third question we asked for "any reports or statistics...that are helpful in understanding the nature and extent of the arson problem in this jurisdiction..." or for any "systematic studies" of the arson problem. None of the respondents asked this question reported the existence of systematic studies, though two cited their local UCR statistics as being helpful in understanding the extent of the local arson problem.

The problem analysis section of the ACAP grant applications probably provided recipient jurisdictions the best opportunity to report systematic data on the nature and extent of arson. Most of these applications included statistics showing the extent of the problem, including two-to-three year trends in arson incidence. Only one jurisdiction included statistics on motive. Unfortunately, even in this instance the greatest percentage of cases was in the "unknown" category in each of the three years of data presented (although the trend was toward a decreasing percentage of arsons where motive was unknown). One county grantee polled its fire departments on motive based on "reviews" of case files. Motives were then ranked from the responses, with juvenile vandalism ranked first. Most of the problem analyses in the ACAP grant applications gave impressionistic views of which motive predominated, and in most cases this was juvenile vandalism. The fact that none of our interview respondents even mentioned their grant applications as sources of data on the arson problem suggests that the problem analysis played a minimal role, if any, in the local planning of arson control measures.

2.4 Comparing the Nature and Extent of Arson in Different Jurisdictions

To this point, we have argued the importance of systematically-compiled information on the nature and extent of arson in formulating an effective response, and have presented the finding that such information was not available in most ACAP jurisdictions. In this section, we discuss problems in comparing nature and extent data across different jurisdictions, and an example is given to demonstrate the magnitude of these problems.

Comparing the Extent of Arson

Investigative workloads affect arson detection; as fixed resources are spread over more investigations, the detection rate will be reduced. As will be discussed at length in Chapter Three, the detection of arson requires a great deal of time, money, technical skills and technical support. Other factors affecting detection include:

- training and motivation of fire suppression personnel;
- adequacy of laboratory services;
- existence of a local investigation unit; and
- training and motivation of fire investigation personnel.

Assessment of the influence of these factors on arson incidence statistics compiled in different jurisdictions is clearly more difficult.

Local standards for attributing fires to arson may also greatly affect statistics on the extent of arson. This poses major problems for attempts to survey the magnitude of the national arson problem, such as the new UCR reporting procedures. Some steps can be taken to reconcile these differences; specifically, comparisons must account for:

- local definitions of and assignment of fires to the categories of "arson" and "incendiary" fires;
- whether provisions have been made, following a full investigation to update the preliminary fire cause determination made by the officer in charge of the suppression unit.

- propensity to classify the cause of fires as "suspicious" or "undetermined;"
- the point at which the decision is made, for statistical reporting purposes, whether to attribute a fire to arson;
- the extent to which "juvenile vandalism" fires are included in arson incidence statistics;
- the extent to which small fires, involving little or no property damage (such as fires in trash dumpsters) but believed to have been incendiary, are included in arson counts; and
- the extent to which fires started by children playing with matches are included in arson counts.

In short, statistics on the extent of arson are influenced by classification and counting procedures.

A comparison of arson rates in Newark and Jersey City, New Jersey illustrates how dramatically different measures of the extent of arson can be in two jurisdictions that appear to be quite similar. Newark and Jersey City are located on either side of Newark Bay. Census figures for 1970 show Newark's population of 352,000 to be about 50 percent larger than Jersey City's 242,000. In 1979, there were 8067 fires due to all causes in Jersey City--about 22 percent more than Newark's 6603 fires. Yet in that same year, the number of fires classified as arson in Newark was 33 times greater than in Jersey City (54 in Jersey City compared to 1783 in Newark). This disproportion in the number of arsons seems to imply that Newark has a drastically more serious arson problem than does Jersey City. While the cities' actual arson rates may differ to some extent, the magnitude of the difference in reported arson makes other explanations such as those described above, more plausible. One possible explanation is that the two cities use different definitions of arson. Other possibilities include differences in the quality of the investigative units, judgmental errors causing overreporting or underreporting of arson and difference in ability or willingness of firefighters to notify investigators of suspicious fires. We do not have the information needed to eliminate these and other alternative explanations for the reported difference in the frequency of arson in the two cities. It would be difficult to resolve the issue, short of taking such expensive steps as having the same group of investigators carry out comparable investigations in both jurisdictions.

¹ A 1976 report by the Aerospace Corporation attempted to deal with this problem by counting all fires attributed to "suspicious" origins and one half of the fires of "unknown" (or "undetermined") origin to arson. The basis for choosing half of the unknown fires was apparently the opinion of several investigators that about this proportion of the unknown origin fires were arsons (Aerospace report, p. 4).

Comparing the Nature of Arson

Factors which impede ascertaining motive, discussed above in Section 2.2, call for the exercise of caution when comparing the nature of arson in different jurisdictions. For example, comparisons of the frequency of various motives must account for the fact that some motives are easier to detect than others. An additional set of errors can be introduced by limiting an analysis of motives to cases involving arrest or conviction. These will invalidate comparisons among jurisdictions where the chances of arrest or conviction for particular types of arson differ. This can happen, for example, where policies concerning the level of investigative effort devoted to various types of arson differ across jurisdictions.

The example given earlier, in which the community group disagreed with investigators over the primary cause of arson (i.e., juvenile vandalism or arson for profit) gives rise to another problem with comparisons of the nature of arson in different jurisdictions: motive categories are not necessarily mutually exclusive. Several systems for classifying arson by motive have been developed. In its Report to Congress, the USFA presented 24 arson motives grouped into five major categories. The "program model" for arson prevention and control outlines eleven arson motives.² Some of the categories in these typologies clearly overlap. For example, a school fire set by a youngster who received a poor report card might correctly be attributed to motives of juvenile vandalism, spite/revenge/ anger, or psychological disturbance. Any classification system which included these as motives would thus have overlapping categories. If different investigators were forced to choose a single motive in this example, their choice would probably differ. Even if local rules were developed for selecting a single motive in such cases, there would be problems with comparing the prevalence of different motives among jurisdictions unless such rules or guidelines were standardized. If a motive classification system is restructured so as to make motive categories non-overlapping, a great deal of valuable information will have to be eliminated or the structure made so cumbersome as to be almost unworkable. As described in the next section, one way of dealing with this problem is to abandon the effort to make the categories non-overlapping and instead to use whatever groupings seem most natural and permit each arson to be attributed to more than one motive.

2.5 Toward a Better Understanding of Nature and Extent

This section outlines a methodology for a systematic analysis of the nature and extent of arson that addresses the issues raised in the previous

¹U.S. Fire Administration, Report to Congress: Arson, supra at Note 2, pp. 7-9.

²National Institute of Justice, U.S. Department of Justice, Arson Prevention and Control (Washington, D.C.: Government Printing Office, January 1980), pp. 7-9.

sections. While this methodology was not utilized in the ACAP jurisdictions visited, we believe it might be of great value to local planners. Before discussing the details of this method, however, we would like to make the following points:

- The suggestions made here can be implemented manually; they do not require a computerized information system.
- The procedures suggested rely on the judgments of investigators regarding individual cases and ask them to modify slightly the way they record their judgments about motive, perhaps to modify somewhat the information they collect in the course of some investigations, and perhaps to change slightly the types of cases investigated.
- Apart from the additional effort required of investigators, the procedures involve some design work to develop reporting forms and standards and sampling rules, if needed; training and monitoring of the investigative staff; and production of aggregate statistics. Fire suppression and investigation units are typically overburdened and may not have the technical expertise to conduct the necessary design work; thus an outside expert, working in close collaboration with investigative staff, might be employed on a temporary basis to perform these tasks.
- The added costs of these analysis functions need not be great. However, the tight budget constraints under which fire suppression and investigation staff operate in most jurisdictions suggest careful consideration of alternative funding sources--such as city planning agencies, businesses, and insurance companies--and lower cost labor sources--such as graduate students, paralegals, and volunteers from community groups. Identifying potential sources of funding and labor and eliciting support for this endeavor might be a² useful activity for the community's arson task force.
- The need to study the nature and extent of arson is so important to planning an anti-arson strategy that a jurisdiction without an investigation unit might

¹A more detailed discussion of the full array of information systems available to those concerned with arson control is found in Chapter Five of this report.

²The goals, organization, and functions of the arson task force are described in full in Chapter Six of this report.

consider conducting a study of the local arson problem before establishing a unit. Such a study, using the temporary services of a private investigator, a qualified firefighter on leave from normal duties, or some other outside expert, might help the jurisdiction decide whether it really needs to establish an investigation unit.

While these procedures will obviously require some investment of time and resources, we believe they will result in a more effective arson control program. To reiterate, the primary purpose of systematically examining the nature and extent of the local arson problem is to address the possibility that the actual arson problem is different from what it appears to be on the surface, so that strategies and priorities can be shaped accordingly.

In estimating the extent or amount of local arson, it is important that there be no bias in what type of fires are investigated. For example, if the only fires investigated are those judged to be suspicious by the officer in charge of the suppression unit are investigated, then the statistics of the investigative unit will not reflect the true size of the arson problem if the suppression officers are missing substantial numbers of arsons. One way to deal with this problem is to investigate all fires for a period of time; another is to investigate all "significant" fires (i.e., where more than some minimal amount of damage is caused); a third is to select a random sample of fires to be investigated (e.g., every 10th fire).

Two different types of information about the nature of arsons in the jurisdiction can be defined. One type of information that is relatively easy to gather concerns the objective attributes of fires. A second type of information, which is more subjective, concerns the motives for setting fires. While motive data are more difficult to collect and analyze, they are, as we have stressed throughout this chapter, potentially far more valuable in shaping a campaign against arson.

Many of the "objective" attributes of arson can be collected from a basic fire incident reporting form such as the 902F form used in the National Fire Incidence Reporting System (NFIRS). Data of potential interest include:

- geographic region of the jurisdiction where the fire occurred;
- type and use of property;
- time of day and day of week when fire occurred;
- estimated dollar loss;
- number of deaths and injuries.

The distribution of all arson fires on each of these dimensions should be examined relative to corresponding distributions for all fires. One could then ask the following kinds of questions:

- What percentage of the community's total fire loss is due to fires currently classified as incendiary?
- How does this compare to communities of similar size that have data available? (If this percentage is very different, it may raise questions about the methodology employed in characterizing fires as incendiary. Assuming the data are comparable, such a comparison might reveal a particularly severe local arson problem.)
- What types of structures (e.g., commercial, residential) account for most of the loss?
- What types of structures account for most of the incidence (for both incendiary fires and for all fires)?
- What is the geographic distribution of incendiary fires and of all fires?
- What is the present breakdown of fires by type of cause (e.g., accidental, suspicious, incendiary, and unknown)? If the suspicious or unknown category is large, this may raise questions as to the true nature of the fire pattern.

The second type of information that is necessary to characterize the nature of the local arson problem is information on motive. Motives should be classified so that a thorough investigation can distinguish among them, even in the absence of an arrest. The Committee on Fire Reporting of the National Fire Protection Association recently adopted the following motive categories for incendiary fires for its 901 Standard Uniform Coding for Fire Protection.

1. Fraud.
Included are fires for direct or indirect gain.
Excluded are crime concealment fires.
2. Pyromania, mental illness.
Included are fires started to gain recognition and vanity fires.

¹Henceforth, the report will draw examples from this list when referring to motive.

3. Crime concealment.
Included are destruction of books/records, evidence of fire to conceal murder, criminal activity.
4. Spite, revenge, anger.
5. Vandalism, malicious mischief.
6. Murder.
7. Civil disturbance, terrorist activity.
8. Motive could not be established.
Motive not classified above.
Motive undetermined or not reported.

Local jurisdictions may find it useful to keep track of more specific motives within the seven basic categories. Specific subcategories such as extortion or organized crime take-overs may be added if they constitute a significant portion of the local arson problem. Fraud might be subdivided into organized fraud and fraud perpetrated by individuals operating alone. It is important to note that a particular arson may be due to more than one motive, e.g., fraud where the building is left open to vandalism or malicious mischief by fire. The categories should also imply different courses of remedial action. That is, if two different motives for committing arson would be combatted in exactly the same way, there may be no point, programmatically, in distinguishing between them, even if it is possible to do so.

An important consideration in collecting and analyzing information on motive is avoiding the error of jumping to conclusions merely to offer some motive for each arson case studied. It is important to be able to distinguish between cases where the motive is known or very strongly suspected and cases where there is very little information on motive. Even when one cannot go so far as to identify what the motive was in a particular case, one might still be able to say that several motives were not operating in that case. In order to make these distinctions, the same standards for assigning motive should be applied to each case. For example, before deciding that fraud was not the motive in a particular case, a jurisdiction might insist that certain items of information on ownership, taxes, insurance coverage, and market value be discovered in a "paper chase." If it were not possible in a particular case to obtain all of these items of information, fraud would still have to be regarded as a possible motive for that case. Each jurisdiction should formulate standards in keeping with its own experience and needs. However, so as to maximize cross-jurisdictional comparability of data, they should consider the emerging national standards. In any case, the meaning of the final figures depends heavily on the standards used; these standards should be described as part of any presentation of findings or cross-jurisdictional comparisons.

One way of preserving information where there is uncertainty about motive is to allow each case to be counted under more than one motive. Thus, each case would be assessed against each possible motive and tallied under each motive that could not be eliminated. This system would allow one to say that fraud had been eliminated as a motive in 10 percent of the cases in the jurisdiction or, equivalently, that fraud is a possible motive in 90 percent of the cases. Additional findings might be that spite, revenge, or anger are possible motives in 60 percent of the cases in the jurisdiction and vandalism is a possible motive in 55 percent of the cases in the jurisdiction. This procedure establishes upper limits for the percentage of arson cases attributable to each motive.

If one were also to record whether each motive was known to be operating in a case, one could calculate a lower limit by counting how many cases were definitely caused by each motive. It is possible for more than one motive to be operating, as in the case of fraud arson where juveniles actually set the fire. If both lower and upper limits can be established using these procedures, the findings for a particular jurisdiction might be as follows:

- between 40 and 90 percent of the cases are due to fraud;
- between 10 and 60 percent of the cases are due to spite, revenge, anger;
- between 5 and 55 percent of the cases are due to vandalism, malicious mischief;
- between 10 and 30 percent of the cases are due to pyromania, mental illness.

One might also examine how the findings on motive differ across such dimensions as geographic location or type of property.

In order to carry out this kind of study, each motive category¹ and standards for eliminating each motive must first be defined. Each investigator must take a few minutes to code each case on each possible motive (as definitely operating or definitely not operating) as the last task before closing a case. Finally, coded information must be tallied periodically.

An important advantage of this approach is that the degree of uncertainty about motive is readily apparent from the difference between the upper

¹The NFPA 1981 901 Standard includes categories for motive which can be used in investigative reports. The use of a prototype followup report (904I) is explained in their "Incident Followup Report Manual," 904M.

and lower limit of each range. In the example given above, the range of arsons possibly caused by each motive is so large that the information is of limited usefulness. The ranges can be narrowed by choosing less stringent standards for eliminating each motive as a possible cause of arson. This should be borne in mind when establishing the standards. If the standards are relaxed beyond a certain point, however, the results will be of little value in planning the anti-arson effort.

If the degree of uncertainty about motive is unacceptably great (as reflected by wide ranges), a second way to reduce uncertainty is to increase the amount of effort devoted to each investigation. One way to do this without hiring additional investigative personnel might be to hire a law student or a paralegal to pursue "paper chases." It might even be possible to enlist the help of retired realtors or accountants to carry out paper chases. Some cities have a Retired Senior Volunteer Program which helps locate such volunteers. In one of the ACAP jurisdictions, community groups trained to conduct such paper chases were instrumental in documenting the prevalence of the arson-for-profit problem.

Another way to reduce the amount of uncertainty in these figures without hiring additional investigators is to devote special attention to gathering good information on motive in a sample of cases investigated. It is particularly important that the sample of cases used for this purpose not systematically differ from all arson cases opened by an investigative unit. This could happen, for instance, if "easy" and "quick" cases or mainly residential cases or mainly large cases were flagged for special attention. One simple way to insure that the cases given special attention are representative is to flag for extended investigation every tenth, twelfth, or twentieth case opened for investigation or every "nth" case based on the order in which the fires occurred.

There are clearly limitations to the strategy of investing additional effort on a portion of the total investigative caseload. On the one hand, there are political considerations; i.e., it may be difficult to justify increased effort on only a fraction of all the arson cases. There are technical issues as well. For example, some fraud motives are only identified because of the individual's previous association with other incendiary fires. If the "other" investigation had been cursory, the individual might never have been identified, and the present case might never have been identified as possibly involving fraud. Similarly, if no record-keeping system existed to keep track of suspicious individuals, fraud might never have been identified as a motive in the present case. Thus, the strategy of conducting an extensive investigation on a portion of the total workload may underestimate the extent of arson involving the same individual or group.

2.6 Summary and Conclusions

In this chapter, we have argued that an understanding of the nature and extent of arson is vital to the formulation of effective anti-arson programs and the process of resource allocation involved in planning and implementing such programs.

The extent of arson refers to such things as the number of arsons committed in a jurisdiction each year, the dollar loss due to arson, and the number of deaths and injuries caused by arson. The nature of the arson problem refers to the way in which the total arson problem is distributed along various dimensions, the most important of which is motive. Information on motive is especially crucial because by discovering why arsons occur, one is in a better position to prevent them.

Most of the ACAP jurisdictions had accurate data on the incidence of arson. However, differences in definitions, classification, and tabulation procedures render cross-jurisdictional comparisons difficult. Few jurisdictions studied had conducted a systematic analysis of the nature of their arson problem. Typically, jurisdictions do not possess the resources necessary to mount such an effort. Furthermore, many of the officials we interviewed felt that the impressions they had formed over time concerning the nature of the arson problem were sufficient to guide the planning of anti-arson initiatives. Nevertheless, based on our examination of the ACAP program, we believe that systematic analysis of data on both the nature and extent of arson can be a useful tool in planning anti-arson efforts--particularly arson prevention programs.

In this chapter, we have outlined a methodology for a systematic analysis of the nature and extent of arson based on records of actual arson investigations. While this methodology was not utilized in the ACAP jurisdictions, we believe that it may be of great potential value to planners of arson control programs.

The proposed analysis would be based on a random sample of investigations conducted. It would draw on data concerning the objective attributes of fires--for example, geographical location, type of property, time of day, dollar loss, casualties--and the judgments of investigators as to the motives behind arson fires. The study design would incorporate a consistent and well-defined typology of motives as well as consistent standards and criteria for both eliminating and assigning motives. The design would allow each fire to be counted under more than one possible motive in order to calculate percentage ranges of possible operation of various motives.

The proposed method can be implemented manually--no computer system is required--and although it will involve some additional costs, these should not be unduly burdensome. The additional costs and burden on investigators might be reduced by hiring paralegals or graduate students, or by employing volunteer labor--such as community group members or retired accountants--to conduct "paper chase" research or other parts of the work that need not be carried out by line investigators.

CHAPTER THREE

ARSON INVESTIGATION AND PROSECUTION

Investigation and prosecution are central to any anti-arson effort. Only with thorough investigation of fires can the arson problem be understood and attacked, and only through well coordinated investigative and prosecutorial efforts will those responsible for arson be held accountable. Unfortunately, in many jurisdictions neither fire nor police departments have had the expertise or resources to detect and pursue arson cases in an aggressive manner. Compared to most other criminal offenses, the investigation and prosecution of arson requires an unusual level of expertise as well as a high degree of cooperation among different agencies.

Improvements in the organization and management of arson investigation and prosecution have been a primary focus of ACAP funded activities. This chapter draws on ACAP experience to describe some of the ways in which the local investigation and prosecution functions can be organized and to identify some of the elements which enhance or impede the establishment of successful efforts. Before discussing the organization of arson investigation, it is helpful to understand the basic steps in the arson investigation process. The first section (3.1) presents an overview of the arson investigative process for the interested reader. Those with knowledge of the basic components of an arson investigation may wish to skip to Section 3.2.

3.1 The Investigative Process

Arson has a number of characteristics that require a special investigative approach and specific investigative resources. Unlike most criminal investigations, the investigation of an arson case is not normally initiated in response to the complaint of the victim or the discovery of a crime in progress. The starting point is usually a fire whose origin and cause must be determined before it is known if an arson has occurred. Moreover, the scene of an arson fire is not simply where a crime took place, it is the corpus delicti. In this respect, a suspicious fire is similar to a death where homicide is one of several possibilities and investigators processing the scene play a role similar to that of the coroner. The investigators must have special expertise in determining the cause and origin of fires, just as coroners must have special expertise in determining the cause of death.

3.1.1 Initial Observations by Fire Fighters

Ideally, the detection of incendiary fires begins with observations of the fire fighters upon their arrival at the scene. For example, they may notice

¹For a discussion of the state role in arson investigation and prosecution, see Chapter 7.

suspicious onlookers or vehicles leaving the scene, or may observe characteristics of the fire itself, such as certain odors, the color of the smoke and flames, or the rapidity of fire spread, which suggest the involvement of liquid accelerants. The presence of multiple points of origin is generally an indication that the fire was intentionally set. Firefighters trained to be alert to signs of arson may notice other suspicious characteristics such as the absence of furniture and personal effects in a residential building, or low inventory in a commercial structure. Locked doors and windows without signs of forcible entry may indicate that someone with legitimate access was involved in starting the fire. Obstructions to fire suppression, such as sprinkler systems that have been rendered inoperative through tampering, might also trigger suspicion. A key to early arson detection is the recognition of such signs by firefighters trained to notice and report them.

3.1.2 Cause and Origin Determination

The fire suppression officer in charge of the scene is usually responsible for making the initial cause determination. Whether any further investigation of the fire is conducted may depend on his report. Few jurisdictions have the resources to investigate every fire thoroughly and investigative guidelines vary: some jurisdictions investigate virtually every structural fire or all multiple alarm fires; others lack the resources to investigate any but the largest fires or those causing death or serious injury. Most commonly, investigations are conducted when the initial determination indicates a fire to be of suspicious or incendiary origin. However, lack of training of firefighters in what to look for at the scene, and lack of training of fire officers in cause determination may result in many incendiary fires remaining undetected.

When an investigation is deemed warranted under the policies of the jurisdiction, the first step is the "processing" of the fire scene by trained investigators who must determine where and how the fire started. Fire suppression personnel must be aware of the need to preserve the fire scene until investigators have examined it. Premature overhaul of the damaged structure almost always results in the destruction of evidence investigators need to establish the origin and cause of the fire. To aid in establishing the condition of the fire scene prior to their examination, investigators generally interview fire suppression personnel, occupants, and other witnesses to the fire.

The examination of the fire scene may take a few hours or several days, depending on the type of structure and the extent of damage. The scene investigators must reconstruct the path of the fire from the fire-damaged remains and the observations of eyewitnesses. They will seek to determine the actual cause of the fire by systematically examining all the potential sources of ignition in the area or areas of origin. They must document the fire scene through photographs and diagrams, since thorough documentation is essential in any fire investigation and especially if the incendiary origin of the fire must be proven at trial. If the burn patterns indicate that the fire may have involved a liquid fire accelerant, it is important that physical

samples be removed for laboratory analysis. Such samples can be chemically analyzed to detect and identify traces of accelerants. The testimony of a chemist that traces of an accelerant were found in debris taken from the area of the fire's origin can be crucial to obtaining an arson conviction.

Other types of physical evidence can be retrieved from a fire scene, such as devices for delayed ignition of a fire (to give the firesetter an opportunity to establish an alibi, or at least to escape the scene before becoming endangered by the fire), footprints and fingerprints, and electrical or heating devices and wiring (which can be examined by experts to determine whether they started the fire). The proper collection, identification, preservation, and transmission of evidence is a process requiring knowledge of the legal rules regarding evidence handling, as well as expertise in the physical attributes of the samples and evidence containers. If, on the basis of the scene examination, the cause is determined to be accidental and there are no other reasons to be suspicious, the investigation of the fire as a possible arson case is complete.

3.1.3 Follow-up Investigation

If the scene investigation, statements of witnesses and occupants, or other sources of information suggest the fire may be of incendiary origin, further investigation is warranted. Depending on whether there are any leads as to suspects and motives, the investigation may proceed on one or more fronts. If the fire appears to have been set as an act of spite or revenge, the range of possible suspects may be fairly narrow, or a single suspect may be easily identified. If the fire appears to involve arson for profit, the investigation can become very complex. In such cases it is often necessary to conduct a "paper chase" to determine such things as the identity of the true owner(s) (including names of trustees if owned by a trust),¹ the name of the insurer and amount of insurance, the history of any liens or attachments on the property, condition of the mortgage, claims history of the insured, tax records, records of any code violations, and fire history of the property. Because in arson-for-profit fires, especially those set by professionals, there may have been attempts by the perpetrators to make the fire look like the action of vandals or even appear to be accidental, some jurisdictions with sufficient manpower carry out a basic paper chase on all incendiary fires and even occasionally on a fire that appears accidental if there are other reasons for suspicion.

¹ Other aspects of the investigation of the fire's cause may continue, however. For example, it is becoming increasingly common for the property owner and/or insurance company suffering a fire loss to bring legal action against the manufacturer of a product involved in the origin of the fire.

² Straw corporations are sometimes named as the owner, and it is often difficult in these cases to identify the individuals who have a financial interest in the property.

Arson-for-profit fires range from kitchen fires set to obtain insurance money for remodeling to fires which are part of large-scale sophisticated operations or arson rings. In the first case the paper chase may not reveal much except possibly a past history of insurance claims or possible motives such as personal debt or a failing business. In the latter instance the records may reveal property transactions at successively inflated values prior to the fire, names of owners or agents who have surfaced in connection with other suspicious or incendiary fires,¹ and any number of other facts which together may suggest suspects and motives. In such cases the records will contain much of the evidence that will be required to build the case against the responsible parties. Obviously, the persons perpetrating the fraud may take great pains to conceal the nature of the transactions and the true identities of those who stand to gain from the insurance payment. As a result, the paper chase in an investigation of a complex arson-for-profit scheme may go on for many months, involve a number of investigators, and require the assistance of accountants or others experienced in the analysis of financial records.

If there is sufficient evidence from the scene to support the conclusion that the fire is incendiary, and if there is sufficient evidence from the follow-up investigation to implicate particular suspects, criminal charges probably will be filed. If the case is prosecuted and goes to trial, all the aspects of the investigation, including the initial observations of the fire suppression personnel, may come under examination in the courtroom. Although few cases actually go to trial, all investigations must be conducted with the completeness, accuracy, and attention to evidentiary requirements of the courts. The involvement of the prosecutor in the case during the investigation phase may help to insure that cases are prepared properly. (Arson prosecution is discussed in Section 3.3.1 below.)

3.1.4 Civil Litigation

Even when criminal prosecution is not pursued, background information and evidence on fire cause may be presented in court if civil litigation ensues between the insurance company and the insured over payment of the claim. If the insurance company questions the claim because the fire report indicates a suspicious or incendiary origin, or on the basis of the past history of the property or the insured, it may employ a private fire investigator to perform an additional investigation. If the fire is determined to have been accidental or incendiary with no owner complicity, the claim will be paid. If, however, the investigation concludes that the owner was involved in the deliberate burning of his own property, depending on the weight of the evidence, the insurance company may deny the claim or attempt to recover it if it has already been paid. If civil litigation ensues, the evidence of the fire's cause and the owner's involvement will have to be presented in court, and fire and police personnel may be called to testify.

¹ In Chapter Four, we discuss in depth a range of motives which might be linked to arson-for-profit activity both in declining neighborhoods and those experiencing "gentrification."

3.2 Organization of the Arson Unit

Arson investigation requires both knowledge of fire and knowledge of the requirements of criminal investigation. The fire department normally has the responsibility for making a preliminary determination as to whether an investigation is warranted, but sometimes lacks the resources and expertise to conduct a full criminal investigation. Many arson cases are very complex and require a wide range of investigative skills. Fire suppression personnel may not have the expertise to investigate fires and conduct criminal investigations. On the other hand, police officers and detectives, who are familiar with techniques necessary to establish motive and identify suspects, may lack the expertise required to investigate fires, and particularly to conduct fire scene examinations. Thus, effective cooperation between fire and police investigators is essential.

Because arson investigations require special expertise, considerable investigative time, and extensive use of support services and equipment, many larger jurisdictions assign personnel and dedicate resources specifically and exclusively to arson investigations. The organization of special arson investigation units is the subject of the sections which follow.

In Section 3.2.1 we describe four basic organizational schemes which are used to conduct effective arson investigations and to attack the wide variety of types of arson. Each of these models was observed operating in one or more of the ACAP sites. In Section 3.2.2, we discuss a variety of factors which may affect each jurisdiction's choice or effective implementation of an arson investigation model. Finally, in Section 3.2.3 we provide brief descriptions of the experiences of the individual ACAP jurisdictions from which our overall generalizations are drawn. Each of these "case studies" is designed to illustrate one of the four models and the key factors affecting the operation of the unit.

3.2.1 Organization of the Arson Investigative Function: Four Models

We have identified four basic organizational schemes for carrying out arson investigation functions. Distinctions among the models are based on two factors: 1) the organizational affiliation of the investigative unit or units; and 2) the supervisory authority over the personnel involved. Within each model, there may be variations in the actual division of responsibility among personnel. Generally, however, these models reflect very different approaches to structuring arson investigation, each bringing with it different advantages and potential problems. The four approaches may be summarized as follows.

- Divided Responsibility between Fire and Police Departments. The most common organization of the arson investigative function is to divide the responsibility between the two departments. Typically, the fire department makes the cause and origin determination

and interviews witnesses and occupants. If there is reason to believe that the fire is an arson, the case is turned over to the police department, which may proceed with an investigation. This may not even be recognized as a division of responsibility with respect to arson investigation, but simply as the routine performance of activities in the two departments. Where there is a well-developed fire investigation function within the fire department, the division of responsibility may be different, with the fire department conducting some of the follow-up to the scene investigation.

- Exclusive Fire Department Responsibility. Under this model there are two variants, depending on the legal authority of the fire investigative unit and its personnel. In some jurisdictions, fire investigators have arrest powers and thus can carry the investigative process through to its conclusion on their own. Where this is the case, the investigators receive training as peace officers in addition to training in fire investigation. In other jurisdictions, the fire investigators may conduct virtually the entire investigation and prepare the case for the prosecutor, but must rely on the police to perform actual arrests.

As under all the models, the police take jurisdiction over certain aspects of the investigation where other offenses besides arson are involved. For example, in a fatal fire, the police homicide squad typically will take charge of the homicide investigation, while the fire investigators will investigate the fire.

- Joint Fire/Police Team Responsibility. For purposes of this discussion, a joint fire/police unit is defined as a team composed of both fire and police personnel under a single supervisory authority. The supervisory authority may be located in the fire department or the police department. Under this definition, the fire and police members of the team still belong to their respective departments (as opposed to the situation where the fire department has hired someone with a police background, or *vice versa*). The supervisor may not have total authority over all matters relating to team members' work and careers, but he does have the authority to assign and direct arson investigative work. Investigative tasks may be strictly divided between fire and police members, or shared completely, but the defining characteristic remains the common supervisory authority. (Supervisory authority which is shared by fire and police is considered a single supervisory authority if decisions are made jointly by the supervisors.)

- The Autonomous Investigation Unit

The autonomous investigation unit is defined simply as one which is located outside of the fire and police departments. It may be

located in the prosecutor's office or it could be organized as an independent unit under the local executive.¹ It may be established to bring together personnel from police and fire backgrounds in a single unit, and/or to serve the needs of a multi-jurisdictional area containing a number of independent fire and police departments.

Thus, arson investigation may be organized under a number of different models.

3.2.2 Factors Affecting Choice or Implementation of Various Models

Our observations suggest that a variety of factors and considerations must be taken into account in selecting an arson investigative model and in developing an effective arson investigative strategy. These include the following:

- Primary Investigative Responsibility. Fire and police departments both possess resources important to effective arson investigation. Fire department personnel have expertise in determining the cause and origin of fires. Fire departments also maintain records on all fires which may facilitate analysis of patterns of geography, ownership, and modus operandi. Fire department investigators (who almost without exception have spent time as firefighters) may receive better cooperation than police officers from fire suppression personnel. On the other hand, police officers are skilled in conducting criminal investigations. Police departments often have special skills and resources unavailable to fire departments, such as crime scene photographers and evidence technicians, which can be important in arson investigations.

It remains an open question whether it is more efficient to teach persons already knowledgeable about fire how to do criminal investigations, or to teach experienced investigators about fire. There are examples of success with both approaches among the ACAP sites. Decisions usually reflect traditional practice, resource allocations, laws, politics, and personal relationships of key officials in particular jurisdictions.

- Supervisory Structure. In many jurisdictions the most efficient use of capabilities and resources may involve some combination of

¹ The latter was not actually observed in operation among the ACAP sites, but one site--Dayton, Ohio--was planning to reorganize on this basis.

fire and police efforts to investigate arson. However, the most effective arson investigative units appear to be those operating under a single supervisory authority. It is often difficult to reconcile the need to maximize the use of existing resources in different agencies and departments with the desirability of a single supervisory apparatus. The various team approaches, both formal and informal, implemented in the ACAP sites offer examples of possible resolutions. These are described in the case studies presented below.

- Capabilities of the Investigative Supervisor. The investigative supervisor should be knowledgeable about arson investigation and should possess strong managerial skills. The supervisor should be able to set investigative priorities, deploy investigative resources, oversee the development and utilization of arson-related data, identify training needs and training opportunities, identify personnel and equipment needs, and obtain the cooperation of key public and private organizations and promote the exchange of information among them. Ideally, s/he should also be able to handle relations with the press and community groups and work for legislative reform where needed. In larger units, the managerial skills needed to carry out these functions may be a more important consideration than experience in arson investigation.
- Relations with Fire Suppression Forces. Regardless of the organizational scheme of the arson investigation unit, it is imperative that it cultivate good relations with fire suppression personnel. To a large extent, arson units depend on suppression officers to trigger investigations. The observations of suppression personnel at the scene are important for detection and for providing information which can aid in the investigation. Moreover, the preservation of the scene is critical to a proper cause determination.
- Size of the investigative unit(s). Appropriate unit size depends on a number of factors, such as how many fires need to be investigated, and which tasks are to be carried out by members of the unit versus additional support personnel (such as evidence technicians and photographers). There is no simple formula for determining the optimal size, since the need for investigative resources will vary according to the types of investigations conducted (e.g., predominantly arson-for-profit investigations versus predominantly spite and revenge arsons). A careful examination of the present and potential need for coverage on different shifts, workload, and the hours spent on various types of cases and on specific tasks within those cases can provide information useful in determining unit

size.¹ However, experience suggests that as investigative resources are increased and more fires are investigated, more arsons are detected. This should alert jurisdictions that have not provided adequate resources to investigate a larger proportion of fires on a routine basis that many arsons may be going undetected.

- Specialization within the Investigative Unit(s). In some jurisdictions investigators perform all tasks in cases assigned to them. Some officials believe that this maximizes continuity in investigations and minimizes the chances of conflicting court testimony. In other jurisdictions, there is specialization of functions within the unit. The most common division is between the cause and origin determination and the follow-up investigation. In large units there may be greater specialization by task, such as photographing or diagramming the scene, or by type of investigation, such as juvenile firesetters or arson-for-profit. Certain tasks may be assigned to persons outside the investigative unit, such as evidence technicians and crime photographers. Specialization within the unit and the use of resources outside the unit may result in the development of higher skill levels and represent an efficient use of investigative resources. Obviously, the extent of specialization is dependent on the size of the unit and the availability of outside resources.
- Staff Scheduling. Staff and shift scheduling may be very complicated, particularly in units operating under the divided responsibility model. In general, staff scheduling should be based on reliable data on demand for services and should insure that personnel who must cooperate in investigations work either synchronized, or at least overlapping shifts.
- Involvement of the Prosecutors. Prosecutorial involvement with arson investigative units varies considerably across jurisdictions. In some jurisdictions the prosecutor's office may be closely involved in investigations, beginning with the preliminary fire scene examination. In others, the investigative unit may develop cases fully before presenting them to the prosecutor for screening and/or issuance of an arrest warrant. Early involvement of the prosecutor is considered by both prosecutors and investigators to produce more and stronger cases.
- Formality of Structure and Procedures for Cooperation. The structure and procedures governing the operation of arson investigation

units range from highly formalized, in which inter-agency relations and operating policies are detailed in writing, to highly informal, in which effective cooperation depends more heavily on responsibilities and personal relationships. There are successful examples of each among the ACAP jurisdictions.

3.2.3 Case Studies

A broad spectrum of arson investigative organizations and operating procedures is represented among the ACAP jurisdictions. In this section we present case studies illustrating how arson investigative units operate under the different models, how they vary in size and specialization, and how the other factors noted above affect their performance. Certain factors affecting the capabilities and performance of arson units deserve separate discussion. Thus, sections on unit geographical coverage, selection and retention of qualified staff, prosecution, training, laboratories, and other resources follow the case studies.

The case studies in this section are organized according to the four basic models of arson investigative organization. The sites chosen for discussion were selected because of their value in illustrating the four models and the key factors affecting the operation of investigative units.

Divided Responsibility between Fire and Police Departments

Under this model, responsibility for investigative tasks is divided between fire and police departments. In all three of the ACAP jurisdictions selected as examples of this model--Milwaukee, Kansas City, and San Francisco--police have a major role in the investigation. In San Francisco, the cause and origin determination is the responsibility of fire department investigators, while the follow-up is led by police detectives assigned to work out of the fire department. In Milwaukee and Kansas City the police make their own cause and origin determinations, often in conjunction with the fire department's investigators, but sometimes alone or following an initial determination by the fire department.

Each of these jurisdictions illustrates other features of interest in effective investigative operations:

- Milwaukee provides a good example of close cooperation between fire and police investigators without much formal structure to support cooperation. The prosecutor appears to play a very important role in maintaining the sense of team effort.

¹The potential caseload could include, at a minimum, investigations which are presently dropped or abbreviated due to manpower shortages.

- Kansas City has a highly developed arson unit in the police department whose effectiveness appears to be based both on well-defined management and personnel practices and the arson investigative expertise of its supervisors and investigators.
- San Francisco offers an example of fire/police operations which are housed together but in which staff report to different superiors and retain clear separation of functions.

Milwaukee. In the years immediately prior to the receipt of the ACAP grant, the fire investigation unit of the Milwaukee Fire Department had been disbanded and the police department had sole responsibility for arson investigation. On the basis of recommendations of a mayoral commission, a small investigation unit was re-established in the fire department to perform initial cause and origin determinations. The police department continues to be largely responsible for directing the processing and documenting of incendiary fire scenes and for conducting follow-up investigations, with some assistance from the fire investigators. The police department also assumes responsibility for making initial cause determinations when the fire investigation unit is unable to respond.

The Fire Investigation Unit in the Milwaukee Fire Department consists of a lieutenant and three investigators, all of whom have received formal training in fire investigation. The three lieutenants work a 24-hour shift, while the supervisor works from 7:30 a.m. to 5:00 p.m., five days per week. Because there is no provision for overtime pay, there can be gaps in coverage when one of the investigators is on sick leave or vacation.

The unit responds whenever the battalion chief reports that a fire is of incendiary origin or that a structural fire with damage in excess of \$500 is of undetermined origin, or when the fire has caused a death or serious injury. It does not respond to vehicle fires unless unusual circumstances exist. Generally, vehicle fires are investigated by police patrol units. To insure that all fires that should be investigated are investigated, the fire investigators review all of the fire department dispatchers' reports. They may decide to investigate fires where they feel the reported explanation of the cause is weak, or where the address or name of owners, occupants, or persons reporting the fire cause them to be suspicious.

When the fire investigators respond to a scene they make a visual examination and interview the suppression personnel, occupants, and bystanders. If they have reason to suspect that the fire is of incendiary origin, they will request the assistance of the police.

¹ Twelve lieutenants in the department who have received training in fire investigation remain assigned to suppression and cannot be used as replacements because no funds are available to fill their slots if they are temporarily assigned to investigative duties.

Nine detectives in the General Assignment Section of the Milwaukee Police Department's Detective Bureau have received training in arson investigation. However, the bulk of the arson work is conducted by two detectives who are assigned to arson investigation full time. They have received additional training through attending numerous seminars and short courses, mostly on their own time and at their own expense. They report daily to a lieutenant in the General Assignment Division and directly to the Inspector in charge of the Detective Bureau. This insures that the Inspector is kept fully informed of their activities.

The two arson detectives work 8:00 a.m. to 5:00 p.m., Monday through Friday. At night and on weekends, the other detectives with arson training may fill in. However, if they also are unavailable because of other assignments, other detectives or uniformed patrolmen may be dispatched to a fire scene. All detectives and patrolmen in the department have received eight hours of training in arson detection. When major fires occur, the scene will be held until the regular arson detectives can arrive to direct the processing. In many cases, however, the police who respond initially will conduct the scene examination themselves.

Apart from occasional problems arising from their differing work schedules, there appears to be good cooperation between the two full-time arson detectives and the fire investigators. Typically, the fire scene is processed jointly by the arson detectives and the fire investigators. In addition, the detectives may call for evidence technicians to assist them, or, in fatal fires, call in the city engineer to do scale drawings. The follow-up investigation, including interviews and "paper chase," is primarily the responsibility of the police, but the fire investigators may assist them.

The arson detectives have the primary responsibility for maintaining arson intelligence, while the fire department maintains records on all fires. The police have access to fire department records, but the fire investigators do not have direct access to police records. An investigative level task force meets once a week to review progress on cases and exchange intelligence. It consists of the fire investigators, the arson detectives and their lieutenant, and the assistant district attorney assigned to arson. Other members of the task force who may attend include representatives of the City Attorney's Office, the State Fire Marshal's Office and the ATF and FBI.

¹ There is a similar discrepancy in fire and police shifts in another ACAP jurisdiction. However, in that jurisdiction off-duty police detectives may be called back on an overtime pay basis, although they still must report for their regular shift at 8:00 the next morning. As a result of this situation, the police are typically not called out during off-hours except to respond to very serious fires. Otherwise, they are notified of the case the next morning. This can create gaps in the investigative process and undermine close fire-police coordination.

Milwaukee's full-time arson prosecutor appears to be a key to the coordination of police and fire efforts in the city. While on a personal level the fire and police investigators cooperate with each other very well, there are few formal structures for insuring cooperation. Being outside both departments, the prosecutor is able to bring a unifying perspective to the effort. He works closely with both the fire and police investigators, particularly on arson-for-profit cases, and maintains an additional office in fire department headquarters. He is often involved in cases from the very beginning, since he will respond to a fire scene at any hour when called by the investigators. His willingness to do this, his frequent presence in the fire department, and his close relationship with the investigators helps to maintain the cohesiveness and morale of the team and gives a certain amount of prestige to the investigators' efforts.

The personal dedication of the core team--the arson prosecutor, the fire investigators, and the two arson detectives--is outstanding. If there are shortcomings in arson investigation in Milwaukee, they stem from the division of responsibility between the two departments and the fact that neither department has overall supervision of arson investigative efforts. The fire department's role is limited by the available investigative manpower, while the police role is divided between the full-time arson detectives and numerous other police officers who may become involved. The lack of a single supervisory authority is reflected in the gaps in coverage and problems in coordinating schedules, as well as problems in mobilizing resources. Neither department has provided its arson investigators with clerical support to help specifically in maintaining arson records and files. Moreover, the police department's arson detectives must rely on the fire investigators to transport the tools needed to process the scene because they do not have a vehicle permanently assigned to them in which they can store equipment.

However, the present arrangements for arson investigation in Milwaukee are common to many other jurisdictions, and Milwaukee serves as a good example of the close cooperative effort that can be built under such circumstances if the individuals involved are dedicated to the common goal of arson control.

Kansas City. The division of responsibility between departments in Kansas City is similar to that in Milwaukee: the fire department makes an initial cause determination but waits for the police to arrive before beginning to process the scene. The major difference is that Kansas City has an arson unit, with separate organizational status, within the police department.

The Fire Prevention Bureau of the Kansas City Fire Department is responsible for both code enforcement and fire investigations. The bulk of its resources are devoted to performing inspections. Of the five inspectors within the Bureau who are assigned to do investigations, four work the day

shift and the fifth covers the 7 p.m. to 4 a.m. shift on a rotating basis.¹ The inspector on the night shift does investigation work exclusively, while those on the day shift also do inspections. The night shift investigator responds automatically to any structural fire causing over \$2000 damage and to other fires at the request of the suppression officer in charge. The investigators on the day shift respond only at the request of the officer in charge.

The Fire Department's investigators perform a visual examination of the scene, and if they believe the fire is incendiary they call the police Arson Control Unit. When the ACU arrives, the fire investigators work with them to process the scene. (The ACU responds automatically to all multiple alarm and fatal fires.)²

The Arson Control Unit of the Kansas City Police Department consists of eight detectives, two sergeants, a captain, and two secretaries. The unit has equal status with five other units within the Crimes Against Property Division of the Investigations Bureau. The unit is organized into two squads, each consisting of a sergeant and four men. One squad works from 8 a.m. to 4 p.m.; in the second squad one sergeant and three men work from 4 p.m. to midnight, and the fourth man works from midnight to 8 a.m. Every 28 days the squads change shifts, including the sergeants. (By keeping the entire squad intact during changes in shift, the Unit assures continuity on the team.) If occasions arise when additional manpower is needed, there are provisions for calling on other members of the ACU.

At the scene, the ACU is responsible for determining if the fire was of incendiary origin and if it should be classified as a criminal offense. In addition to the assistance of the fire investigators and fire suppression personnel, the ACU investigators may receive assistance from police evidence technicians in processing and documenting the scene.

Once the initial investigation is complete and the report prepared, the case goes to one of the sergeants for review. The department has established formal criteria for reviewing cases and deciding if they are to be pursued. All cases of first degree arson--that is, if the building was or could have been occupied--are assigned for follow-up. Other cases are evaluated on the basis of the importance of the case and solvability factors. All cases are classified according to the amount of information available:

¹ The Fire Department in Kansas City has a computerized fire incident data system which they have used to determine the times of day when fires requiring investigation most often occur. The current shift assignments and duties of the investigators are based on those findings.

² Under some circumstances the ACU investigators may be the only ones called to the scene.

Type "A" -- No suspect, witness or suspect vehicle listed on the Offense Report

Type "B" -- Witness and/or suspect vehicle listed on the Offense Report

Type "C" -- Suspect in custody or suspect known and listed on the Offense Report

The sergeants are responsible for assigning cases to the investigators and for making an equitable distribution of A, B, and C cases. (Major arson for-profit cases sometimes are referred to the police department's white collar crime unit.) They are also responsible for making recommendations for closing cases. Closeout recommendations are reviewed by the ACU commander and the department's case review unit. If the sergeant, ACU commander, or case review unit determines that a case requires further work, it is returned to the assigned investigator for appropriate action.

The Arson Control Unit also maintains formal procedures to monitor investigators' performance. Time spent on cases is recorded and monitored. That information is then coupled with information on case disposition to evaluate individual performance. Unproductive detectives may be moved out of the unit. Since there is a waiting list of experienced detectives wishing to join the ACU, there is competition to get in and perform well.

Clerical support is important to ACU operations. Increasingly, reports are taped at the fire scene rather than written out from notes at a later time. In either case, the secretaries prepare final, typed versions of the reports. The ACU's captain reports that the taped reports are more detailed and comprehensive than are the written reports.

Unlike many other arson investigation units, the ACU does not appear to be heavily dependent for its success on the expertise or experience of specific supervisors. The unit will soon be getting its third supervising captain in less than two years. There has been turnover in the lower ranks as well. Still, the unit appears to have become increasingly expert and efficient. The key seems to be the management structures and practices that have been developed by the department. The current commanding officer of the ACU serves primarily in a management capacity, with the sergeants as line supervisors, and thus has not found it necessary to become expert in all the technical aspects of arson investigation.

Because of mobility within the department, the ACU has been able to attract and select experienced and well motivated investigators. However, with turnover and the need to train and evaluate new personnel, management becomes even more important. It seems clear that the specific management

¹ Recruiting and career issues are discussed more fully in Section 3.2.5.

experience and expertise of the ACU's commanders has been essential to the unit's effectiveness.

In addition, both the commanders of the ACU and the Fire Department's Chief Inspector point to the expertise and cooperation of the full-time arson prosecutor as elements enhancing the effectiveness of arson investigation in Kansas City. Her willingness to pursue difficult cases and to be available around the clock to advise and assist the investigators is important to keeping both performance and morale at a high level.

San Francisco. Under the San Francisco Arson Task Force, responsibility for fire and arson investigation is divided between a Cause and Origin Section, headed by a lieutenant from the Fire Department's Bureau of Investigation, and a Criminal Investigations Section headed by an inspector from the police department's Personal Crime Section. To facilitate cooperation, the Criminal Investigations Section works out of fire department headquarters.

Seven fire investigators and their commander comprise the Cause and Origin Section. They are called whenever the suppression officer in charge cannot determine the cause of the fire or believes it to be incendiary, whenever there is a multiple alarm fire, and whenever a fire results in death or serious injury.

As is the case in a number of other jurisdictions, investigators travel to fire scenes in an arson van and direct the photographing, diagramming, and collecting of evidence at the scene. They may perform these tasks themselves or with the assistance of a fire department photographer and evidence technicians from the police department. The investigators from the Cause and Origin Section also conduct the initial interviews with fire personnel, occupants, and witnesses.

The men assigned to the Cause and Origin Section work a 24-hour shift. Each morning at 8:00 the shift meets to discuss the night's cases with their lieutenant and the police inspector in charge of the Criminal Investigations Section. Fires determined to be incendiary are referred to the Criminal Investigations Section for follow-up investigation.

The Criminal Investigations Section is headed by a senior police inspector who has been assigned exclusively to arson investigation since 1977. One other police inspector is presently assigned to arson investigation and a third is scheduled to join the section. In addition, two investigators from the Bureau of Fire Investigation are assigned to the section on a three-month rotating schedule. Each is paired with a police inspector. This is primarily a training device intended to expand the capabilities of the fire investigators.

The Criminal Investigations Section is responsible for conducting follow-up investigations on all fires determined to be of incendiary origin by the Cause and Origin Section. They also respond automatically to all multiple alarm and fatal fires.

There is a designated arson prosecutor in the San Francisco District Attorney's Office who is closely involved in cases from their earliest stages. Like the fire investigators and the police inspector, he responds to all multiple alarm and fatal fires and believes that this is essential to successful arson prosecution.

Despite San Francisco's efforts to achieve an integrated approach, it appears that the fire and police units do not function as a single team. Their shift schedules differ (the Criminal Investigations Section works a 40-hour week) and their members report to different supervisors. The three-month rotation of five investigators to the police unit does not appear to be long enough to make them full members of the Criminal Investigations team.

The police inspectors who work out of fire headquarters are isolated from their unit and department but, due in part to schedule differences, they do not really "belong" in the Fire Department either. The cause and origin investigators have police powers but are less often in a position to exercise them than are similarly empowered fire investigators in a number of other jurisdictions.

The present structure appears to be reasonably efficient. There is no indication of any duplication of effort between the two sections and communication seems to be good. However, the organizational structure does not appear to have produced a fully integrated unit. The absence of a common supervisor may be responsible for the lack of full integration.

Exclusive Fire Department Responsibility

Two ACAP jurisdictions were chosen as examples of this "all-fire" model: Norfolk and Houston. These case studies serve to illustrate the differences in task specialization and organizational complexity between two units of very different size: Norfolk's unit has a staff of nine while Houston's has a staff of 68.

Norfolk. The Norfolk Arson Squad consists of five investigators and three research and systems personnel under the supervision of a fire captain. All squad members have received both fire investigation and law enforcement training and have powers of arrest within the city. The arson squad is responsible for all aspects of fire investigation with the police department generally playing a support role. However, the police do become directly involved in investigations of fatal fires.

The squad responds to the fire scene on the request of the suppression officer in charge and, as a matter of practice, responds to all multiple alarm fires and fires resulting in death or serious injury. The investigators work a 40-hour week with a weekly rotation through the 11 p.m. to 7 a.m. shift. In addition, they take turns being on-call during their off-duty time. Because

of the size of the squad and its coverage needs, the investigators are either on-duty or on-call 50 percent of the time.

There is no specialization or systematic division of labor within the squad. Investigators typically work in pairs to process the scene and conduct the follow-up investigation. There is a designated arson prosecutor in the Norfolk Commonwealth Attorney's Office, but arson cases make up only a small part of her caseload. The prosecutor's office is rarely involved in the early stages of arson cases--only when the investigators request assistance. Most often, investigators present completely developed cases to the prosecutor for screening.

One of the benefits of the Norfolk system--and a potential benefit of the "all-fire" model--is that it permits all arson-related intelligence to be maintained in a single office. A primary goal of the Norfolk arson squad under the ACAP grant was to improve arson data and intelligence. Under the direction of a research analyst, two other analysts--one working directly out of the fire department and the other out of the county data processing department--reorganized the arson squad's files, and developed and implemented an arson incident and investigative information system. As a result of the reporting requirements of this system, arson squad investigators are collecting "paper chase" information more routinely than before. This information is intended to be used for fire pattern analysis in the future.

Norfolk serves as a good example of how the "all-fire" model can operate in medium-sized jurisdictions. The arson squad has the necessary authority and training to perform all the tasks necessary to investigations. In part because there is no specialized division of labor among the investigators, a small number of men is able to provide full-time coverage. In addition, having the responsibility for gathering and maintaining arson intelligence in a single office appears to facilitate both the systematic collection of information and the investigators' access to that information.

Houston. Houston is the fifth largest city in the United States and one of the fastest growing. It has the largest arson squad of any city to receive an ACAP grant. Arson investigation in Houston is performed by the fire department's Arson Bureau. Because all of the arson investigators have received training as law enforcement officers and possess arrest powers, the Houston police only become involved in investigations when there is a homicide or other crime involved.

The Arson Bureau has a total staff of 68 and an annual budget of nearly 3.8 million dollars. It is headed by a Chief Investigator who is equivalent in rank to a deputy chief. Largely as a result of the size of the city and of its own staff, the bureau has developed a decentralized organization (discussed in Section 3.2.3 below) and a highly specialized division of labor.

The arson investigators respond on request of the suppression officer in charge and to all multiple alarm and fatal fires. Historically, there

have been some difficulties in inducing the suppression officers to call arson investigators to the scene. Officers are required to call the bureau to report all fires of incendiary and suspicious origin, but, until recently, fires reported as being of "unknown" origin did not require a call to the Arson Bureau. Consequently, the bureau would not learn of these fires until they received a copy of the incident report as much as a week later. Such delays made it very difficult to conduct effective investigations. However, the Arson Bureau has secured a policy change reducing the use of the "unknown" cause classification and requiring suppression officers to make a preliminary determination. As a result, investigators are now being brought into cases on a much more timely basis.

In general, the investigators work in teams of two. Typically, there is a division of labor with different teams performing the scene examination and the follow-up investigation. Support functions are also specialized. When a team responds to a fire scene, a photographer is dispatched automatically as well. The bureau's evidence technician is also available to assist in taking and packaging samples of fire debris at the scene. However, compared to many of the other ACAP arson squads, the Houston Arson Bureau places less emphasis on establishing the cause of the fire through the analysis of fire debris and more on traditional law enforcement approaches to investigation. This may be due to the fact that Texas appears to have less stringent evidentiary requirements for establishing the incendiary origin of fires: the expert opinion of the investigator is sufficient. In addition, relatively few of the cases handled by the bureau go to trial, since the investigators seem to obtain confessions in most of the cases prosecuted. The Arson Bureau is equipped with polygraph facilities, including trained operators, and maintains its own fingerprint laboratory.

In addition to these facilities and regular investigation teams, the bureau maintains a vehicle fire task force, an intelligence unit, and a record department. The vehicle task force of the Arson Bureau works closely with the police, since vehicle fires are often associated with vehicle thefts. Similarly, the intelligence unit in the bureau works closely with the police intelligence unit and reports that it has good access to police intelligence. On all arson fires, the bureau's investigators complete a Houston Police Department offense report as well as reports for their own department. The bureau also participates in a permanent joint task force with the ATF.

Arson Bureau investigators normally develop their cases fully before involving the prosecutor's office. There is no formally designated arson prosecutor in the Harris County District Attorney's Office, although several attorneys in the Special Crimes Section have worked closely with the bureau on major investigations. In most instances, however, once the investigators have prepared their case, they approach an assistant district attorney for an arrest warrant. Sometimes this requires "shopping around" among a number of attorneys before one is identified who will apply to the court for issuance of a warrant. Nevertheless, the bureau's Chief emphasized that they rarely have trouble getting charges filed.

In sum, Houston's Arson Bureau provides a good example of the kind of organization and specialization that can develop in an "all-fire" arson unit with a large staff. The Arson Bureau not only has a number of investigative teams and a well developed supervisory structure, but it provides nearly all of its own support services.

Joint Fire-Police Team Responsibility

We include two ACAP examples of the joint fire-police team model--Dayton, Ohio and Baton Rouge, Louisiana--which illustrate the differences in task differentiation and specialization within the basic model.

Dayton. The Dayton Arson Abatement Unit (AAU) is one of three components of the Dayton Fire Department's Fire Prevention Bureau. It was established in 1978 when a fire investigator from the fire department and a detective from the police department began to investigate fires as a team. The present unit serves the city of Dayton and several surrounding communities. (We discuss the multi-jurisdictional aspects of the unit's operations in Section 3.2.3.)

The Arson Abatement Unit is staffed by three Dayton fire investigators, a Dayton police detective, an investigator from the Miamisburg Fire Department, a Montgomery County Sheriff's Deputy, and a secretary. A Dayton fire lieutenant is in charge of the unit. He is responsible for directing the fire investigation work of the unit, but personnel within the unit may have to report to him and to a supervisor in their own departments. For example, the Dayton police detective must report to the Dayton Police Department at the beginning and end of each work day. The AAU's supervisor feels that it would be more efficient to have all of the investigators report to a single supervisor.

The unit performs cause and origin determinations and follow-up investigations in Dayton and Miamisburg and is available to assist in cause and origin determinations, but not follow-up work, elsewhere in Montgomery County. The AAU responds to any fire in Dayton and Miamisburg that is of incendiary or undetermined origin or has caused a death or serious injury. Within the city of Dayton, the suppression officer in charge is required by department order to summon the AAU to the scene if any one of these criteria is met.

Each member of the unit has been trained to conduct investigations from beginning to end. All have had extensive training in fire investigation, and the fire members of the team have attended a 367-hour law enforcement training program at the Montgomery County Sheriff's Academy. Upon completion of the course they were sworn in as Sheriff's Deputies. All the members of the unit have the authority to make arrests county-wide except the Dayton police detective whose arrest powers are limited to the City of Dayton.

Unit members work individually; there are no distinctions in task assignments between the fire and police members. Cases are assigned on a

rotating basis, and each investigator carries out all the tasks on his cases. He examines the scene, collects and packages fire debris samples, takes and develops photographs, and prepares sketches. As all unit members are sworn sheriff's deputies, the same investigator will also interrogate witnesses and suspects, and do record checks and paper chases. Finally, each investigator does his own paperwork, which includes making police reports on fires attributed to arson.

The Montgomery County Prosecutor's Office is organized horizontally, but there is a designated contact attorney for the Arson Abatement Unit. The attorney rarely attends fire scenes and generally is not notified of cases until a suspect is identified. He then advises investigators on matters of search and seizure and obtaining statements. The designated prosecutor also decides whether the case should go to the grand jury or proceed by information. If the case goes to the grand jury, the designated prosecutor, instead of a grand jury unit attorney, makes the presentation. Otherwise, arsons are handled like other felonies. They go to the criminal division where assignments are made strictly according to the judge hearing the case.

Dayton is an example of an attempt to combine police and fire members from more than one jurisdiction in a unit with a single nominal supervisor, while the departments to which the men belong retain some authority over them as well. Such arrangements can pose difficulties for both the squad members and their managers. To resolve these difficulties, Dayton is considering establishing the unit as a separate office independent of any of the departments presently participating. Autonomous investigation units are discussed in the next subsection.

Baton Rouge. The Baton Rouge arson squad operates in two teams, each composed of a fire investigator and a police detective. The unit is housed in the fire department and is under the joint supervision of a fire investigator and a police detective. The squad is called in by the suppression district chief in charge of the scene if arson is suspected. However, the district chief also may report the fire as of unknown origin, in which case the arson squad will not know of it until the report is received.

In contrast to the Dayton operation, the Baton Rouge unit has far more task differentiation and specialization. The unit operates in teams of two rather than individually as in Dayton. The fire investigator is responsible for the cause and origin determination and interviews with the firefighters on the scene. The investigator also identifies areas to be photographed and selects and packages samples of fire debris and other evidence. The police detective is responsible for interviewing civilian witnesses and identifying and interviewing suspects.

There is a full-time arson prosecutor in the East Baton Rouge Parish District Attorney's Office. He is notified in the early stages of arson cases and may be called to the fire scene. In addition, two district attorney's investigators are available to assist in processing fire scenes, specifically fingerprint work, photography, interviewing, and transporting evidence to the

crime laboratory. They also assist in surveillance, help keep track of witnesses, and provide advice on warrants and other legal matters.

Autonomous Investigative Unit Responsibility

This model is the one least often found in practice at the present time. However, Salt Lake County's Special Arson and Fire Enforcement Unit (SAFE) provides an excellent case study of its operation.

Salt Lake County. The SAFE Unit, established under ACAP funding, is a well-developed arson investigation unit operating within the Salt Lake County Attorney's Office. The staffing and location of the unit effectively bring together under one roof staff who respond to fires, perform cause and origin determinations, carry out follow-up investigations, arrest suspects, and prosecute cases in court.

The SAFE unit consists of the county attorney's chief investigator, three other investigators, a secretary, and a training officer. One investigator has a fire investigation background. The chief investigator and two of the other investigators have law enforcement backgrounds and all of the investigators have peace officer status.

The primary responsibilities of the SAFE Unit are to provide training and assistance to the local jurisdictions within the county. Because the principal purpose of this unit is to coordinate a multi-jurisdictional effort, details of its operations are discussed in Section 3-2.3. The SAFE Unit serves as the core of a county-wide Strike Force that it has developed. The Strike Force includes both fire and law enforcement personnel from 13 jurisdictions. The fire personnel have received law enforcement training and have been sworn as peace officers through the authority of the County Attorney's Office. The Strike Force operates entirely on a cooperative basis, although the chief investigator in the County Attorney's Office does have control of the peace officer powers of the fire personnel.

A key feature of the Strike Force's approach is that responsibility for directing investigations rests with the local authorities, with assistance provided by the SAFE Unit and other members of the Strike Force. The SAFE Unit often provides direct assistance with follow-up investigations, especially "paper chase" research. Because of its location in the prosecutor's office, the unit is able to make extensive use of investigative subpoenas. The SAFE Unit also helps local investigators prepare cases for the prosecutor. Prior to the creation of the SAFE Unit and Strike Force, many of the local investigators lacked the necessary expertise to prepare a case which a prosecutor would be willing to accept.

The activities of the SAFE Unit itself are monitored by its chief using a case management system that it shares with other investigative units in the County Attorney's Office. Each investigator keeps a daily record of

how he spends his time, including the cases worked on, the tasks performed on those cases, and the hours spent on the individual tasks. This information, which is available to the chief investigator in both computerized and hard copy form, can be used not only to monitor case progress and investigator performance, but also to analyze the investigative process and the costs associated with specific tasks in order to improve overall performance and efficiency.

There is a designated arson prosecutor who works closely with the SAFE Unit and becomes involved with cases in their early stages. He meets with the SAFE Unit frequently to review ongoing cases. Indeed, the SAFE Unit and the designated prosecutor function as a team on a daily basis.

The most outstanding feature of the Salt Lake unit is that it has brought about a county-wide cooperative effort against arson. Its location in the County Attorney's Office (rather than in any one department and jurisdiction within the county), its involvement in extensive training activities, and its operating style and procedures all have contributed to its success. These are discussed in the following section.

3.2.4 Geographical Coverage

Most of the case studies in the preceding section dealt with investigative units which cover only one jurisdiction. In this section we discuss units which have primary responsibility for investigations in multi-jurisdictional areas or may be called on to assist local investigators in surrounding communities. This section also describes a decentralized model of local investigative deployment.

Multi-Jurisdictional Investigative Deployment

Most of the multi-jurisdictional deployment represented among the ACAP grantees involves city or county arson units providing investigative assistance or coordination to local authorities within or surrounding their jurisdictions. There is considerable variation in the formality and geographical scope of such arrangements. To illustrate the variations, we present three brief case studies.

Dayton. As noted in Section 3.2.3, Dayton's Arson Abatement Unit (AAU) is available to assist local authorities elsewhere in Montgomery County. This county effort is limited to assistance with cause and origin determinations. There appears to be a need for assistance in follow-up investigations

¹ The Composite Arson Investigative Information System described in Appendix C includes a component which would analyze similar case management data.

as well, but at present Dayton does not render such assistance due to a shortage of resources.

County-wide monthly intelligence meetings have been held to facilitate exchange of arson-related information. While the exchange of intelligence has not yet produced many arrests or directly prevented many fires, the AAU supervisor feels that it has done a great deal to enhance working relationships among all departments in the county.

Salt Lake County. In Salt Lake County, as discussed above, the SAFE Unit within the County Attorney's Office provides investigative assistance to localities throughout the county. Prior to the ACAP program, the Salt Lake City Fire Marshal had been trying to unify anti-arson efforts within the county. At the time that the ACAP application was being discussed, the County Attorney's Office was in the best position to prepare the proposal. As a result, the proposed structure lodged the responsibility for coordinating county-wide efforts in the office of the prosecutor. This has proved to be very successful.

At the outset of the ACAP grant period, designated personnel from the fire departments in the local jurisdictions underwent an eight week training course to become certified peace officers. The instruction was conducted by members of the SAFE Unit and volunteer instructors. Using as a core the SAFE Unit and the 13 trained fire investigators from the 11 jurisdictions, a county-wide arson strike force was created. In addition, each city designated a law enforcement officer to join the Strike Force. ATF agents and staff from the State Fire Marshal's Office were also included. The Strike Force provides a pool of 40 personnel available to participate in investigations. So far, as many as 18 actually have been called to a scene at one time. Many of the small localities unable to afford investigators of their own have expressed great appreciation for the availability of the county investigative Strike Force.

The responsibility for the investigation of the fire rests with the local jurisdiction. The fire suppression officers responsible for the initial cause and origin determination call out their own department's investigator if the fire is suspicious or if there is a fatality. In most cases, the local investigator determines whether assistance is required; if so, he calls the SAFE Unit. The responding SAFE Unit investigators assist the local investigator in determining if additional manpower is needed. If so, other Strike Force members may be summoned to assist. In most instances,

¹ Technically, the SAFE Unit could take jurisdiction over any investigation within the county through its authority as part of the County Attorney's Office. This has never happened, and given the excellent level of cooperation between the SAFE Unit and the local jurisdictions, it seems unlikely that an occasion would arise in which SAFE would have to exercise the prerogative.

the local investigator remains in charge of the investigation, although command may be turned over to another official in unusual circumstances. (For example, the ATF might be given charge of investigating a fire caused by an explosion.) The investigator in charge becomes the coordinator and assigns tasks to other members of the team. The SAFE Unit investigators provide advice if necessary. During the early months of the Strike Force, performance of the team on specific cases was discussed at monthly sessions. As a result, the individual roles played by team members are generally well understood at this point.

The cooperation and coordination among agencies and jurisdictions in Salt Lake County has been excellent. It is based largely on a cooperative spirit built through common training and a team approach orchestrated by the SAFE Unit. When asked how such multi-jurisdictional cooperation had been achieved without formal agreements of assistance, the Salt Lake County Attorney's chief investigator stressed that the initial training of the fire investigators was important to building solidarity and comraderie. With the SAFE Unit personnel doing much of the teaching, relationships were developed between the Unit and the local investigators. On a number of occasions the SAFE Unit investigated fires in the local jurisdictions in place of local investigators who were attending training, and then used the cases as instructional material. Furthermore, when it was discovered that two of the fire officers lacked the high school degree required to become a peace officer, the SAFE Unit arranged for them to take the GED tests. The two graduated from high school the same day they graduated from the training academy. The chief investigator identified this as one of many small things which played an important role in solidifying the teams.

Other factors important in maintaining cooperation, according to the chief investigator, include leaving direction of investigation to the local investigators, insuring that the appropriate local official signs the criminal complaint so that he receives credit for the investigation (even when the SAFE Unit may have played a major role), and maintaining frequent informal contact.

Lynchburg, Virginia. The Lynchburg Arson Squad forms the nucleus of a Regional Arson Investigation Squad (RAIS) available to assist in investigations throughout the Central Virginia Planning District (CVPD). The CVPD comprises four rural counties, four towns, and two cities. Its only urban jurisdiction is Lynchburg. The RAIS was formed largely to provide cooperative assistance in the rural areas. It operates under formal cooperative agreements among the CVPD jurisdictions. Virginia law permits such inter-jurisdictional reciprocal agreements, and the CVPD has formulated agreements in the past to create a regional homicide squad, a drug squad, a drunk-driving program and several other special purpose units.

Fire investigation in the CVPD outside the city of Lynchburg is the responsibility of local law enforcement officials. Officers are designated by their chief or sheriff to take that responsibility and to become members of the Regional Arson Investigation Squad. In addition to the local law enforcement officers, the three investigators from the Lynchburg arson

unit, State Police officers, and ATF representatives are members of the RAIS, bringing its total membership to 53. When there is a fire in an outlying jurisdiction, the volunteer fire company has the initial responsibility to decide whether investigation is warranted. If so, the local member of the RAIS is called to the scene. If the local squad member perceives that outside resources are needed, he consults with the chief or sheriff of the jurisdiction. If that official agrees with the investigator's assessment, he contacts the chairman of the RAIS who activates the resources requested by the jurisdiction. By agreement, requests for RAIS assistance must be made within eight hours of the fire. In many instances, the highly experienced Lynchburg investigators are able to provide the assistance needed. However, if a large number of investigators are required to process the scene, conduct interviews, or perform "paper chases", the full resources of the RAIS are available. However, the requesting jurisdiction always retains control of the investigation; the RAIS members simply render assistance.

The RAIS is based on much more formal arrangements than the Salt Lake County Strike Force. Given its composition, the CVPD lacks the natural focus that an authority such as the prosecutor's office can bring to jurisdictions within a single county. Formal agreements may be necessary to achieve the type of regional cooperation provided by RAIS. It is interesting to note that a main feature of the operating procedures of both the RAIS and the Salt Lake County Strike Force is that the local jurisdiction retains direction of the investigation. This probably serves to maintain the individual cooperation necessary to make the team concept work well in practice.

Decentralized Investigative Deployment

Jurisdictions of large geographical size may consider decentralizing their arson units to improve response time, establish closer relations with suppression forces, and make greater use of local intelligence sources and community groups. We provide one case study of such an organization--Houston, Texas.

Houston. As a result of the city's geographical size, Houston's Arson Bureau implemented a decentralized operation unique among the ACAP projects. Units composed of six investigators, each under the supervision of a senior investigator, man three sector offices during the day shift (7AM-5PM) on weekdays. During the evening, night, and weekend shifts, all investigators work out of the central office. The bureau hopes to expand sector office operation to the evening shift.

Decentralization was intended to reduce investigators' response time to fire scenes and to enable investigators to work more closely with fire suppression forces and community residents on a smaller geographical scale. One of the sectors has further divided its territory into three subsectors. The supervisor has assigned a two-investigator team to each of the three subsectors in an effort to facilitate even closer and smaller scale identification between investigators and their areas of operation.

Sector supervisors report that decentralization has improved morale among investigators by giving them a clearer sense of membership on a team and of closer identification with the communities in which they work. All sectors reported greatly reduced response time. Since all three sectors offices are outside the inner loop freeway, investigators save significant time by avoiding the often severe traffic congestion within the loop. On the other hand, organized community group involvement with sector office activities has been slow to develop.

Supervisors in all sectors reported closer working relations with suppression forces in their areas. Since investigators depend on the suppression officers to trigger their involvement, this has been an important benefit of decentralization.

3.2.5 Selection and Retention of Qualified Staff

Regardless of the location and organization of the investigative unit, it is important to implement policies calculated to select and retain high quality staff.

Recruitment and Selection

Because of the complexity and demanding nature of arson investigation, it is essential that well qualified and motivated individuals staff the arson units. The ACAP sites offer some excellent examples of what can be achieved by highly qualified and dedicated personnel.

Minimum job requirements and other selection criteria and procedures vary according to the organization of the department. Some jurisdictions have minimum standards for the position of fire investigator in the fire department. Minimum standards are likely to exist where there is a formal job classification for fire investigation or for fire prevention, and a promotional examination for such positions. For example, the fire departments in San Francisco and Houston require examinations for transfer from suppression to the arson investigation unit. In San Francisco, when a firefighter is appointed to the position of fire investigator, he automatically becomes a peace officer and must subsequently pass a 40 hour peace officer's course required by California law. Houston's selection criteria are more stringent. In order to take the examination for transfer from suppression to the Arson Bureau, a candidate must have three years' service as a firefighter and two years' service as a chauffeur--equivalent in rank to a lieutenant. Those who pass the examination are promoted to investigator--equivalent to junior captain in the suppression forces.

¹The NFPA has established minimum qualifications for the position of fire investigator. These can be found in NFPA Standard 1031.

The Kansas City Police Department has rather stringent requirements for transfer into investigation. To be eligible, a police officer must undergo a review of his record, a background check, and an interview by a panel of commanders. In addition, the ACU requires investigation experience and thus only accepts transfers from other investigative units. Retention is dependent on performance; unproductive members are transferred out. At the same time, because arson investigation is difficult and requires great sophistication, successful performance in the ACU can aid in career development within the Department. This tends to insure that there are experienced detectives waiting for assignment to the Unit.

In other departments, the only formal requirements for arson investigation positions may be minimum service requirements, typically in fire suppression, but occasionally in fire prevention. In the absence of competitive examinations, selection is usually made on the basis of the candidates' interest and their supervisors' assessments. In smaller fire departments where there is no job classification for fire investigator, it is most common for investigators to be detailed from the suppression forces or from non-investigative jobs within the fire prevention unit. In police departments, arson investigators are usually detectives assigned to work arson individually or as part of a separate arson unit.

Motivation is one of the key ingredients in the effectiveness of an investigative unit, since the pursuit of cases often requires persistence and determination far beyond what is necessary for investigating routine street offenses. Moreover, particularly in smaller units, the working hours and frequent on-call status can make heavy demands on an investigator's personal time.

Retention

The ability of a fire investigation unit to attract and keep highly qualified and dedicated personnel may depend in the long run on the career potential of the assignment and on the working conditions associated with it, including compensation and work schedules.

Because of differences in department pay scales and equivalent suppression ranks of investigators, there is considerable variation in investigators' salaries. Experienced investigators earn less than \$15,000 per year in one city, while starting investigators in another earn a minimum of \$25,000 plus allowances, incentive pay for additional training, and longevity pay. Indeed, due to substantial opportunities for overtime, many of the investigators in the latter city make considerably more than officers of equivalent rank in suppression. Such differences certainly affect the relative ability of departments to attract quality staff for investigative units.

There are differences among jurisdictions in work schedules of investigators and in provision for compensatory time and/or overtime pay. In the ACAP sites, investigators typically work a 40 hour week, but may be on call much of their off-duty time. Routine investigative work such as conducting

interviews and examining records may be done during the day, but fires are likely to occur at night. In smaller jurisdictions, the same investigator who is working a steady daytime shift may be roused night after night to go to fire scenes. Some jurisdictions offer compensatory time but no overtime pay; others offer overtime pay but no compensatory time; and still others offer neither yet expect the same effort from their investigators. The work hours and overtime provisions affecting investigators in some fire departments compare unfavorably with those affecting fire suppression personnel in the same department and detectives in the municipality's police department.

Possibilities for promotion and career advancement may affect the decision of an individual to join or to stay with an investigative unit. Few investigative units are large enough and have sufficient status within their department to offer a separate career path in investigation. The Houston Arson Bureau represents an exception. This is due principally to the bureau's large size and high equivalent rank structure. With the appropriate time in service at each rank, Houston investigators are eligible to take the promotional examinations for the ranks of senior investigator (senior captain), assistant chief investigator (district chief), and chief investigator (deputy chief), all within the Arson Bureau.

Most arson unit supervisors hold a mid-level rank, which usually represents the highest rank that can be attained in fire investigation. Promotions typically do not take place within the investigative unit because of the lack of separate job classifications. An investigator aspiring to achieve the next rank must stand the competitive examination for that rank in the department generally. In some departments there are separate examinations in fire prevention, which often include fire investigation topics. Most often, however, the only available higher positions are in fire suppression and the examinations qualify candidates for promotion to these positions.

This has a number of consequences for personnel in fire investigation. First, it means that they are likely to be at a disadvantage in taking the examination compared to individuals working full-time in fire suppression. Secondly, the work schedules of fire investigation personnel leave them at a disadvantage in preparing for the examination. Lastly, and most important for the unit, if an investigator passes an examination for the next rank, promotion will most likely mean leaving the investigative unit to take the next available slot in the department at that rank. This means not only that the unit can lose experienced investigators, but also that if the job of investigative supervisor becomes vacant, it may be filled by the next candidate for promotion to the prior incumbent's rank, even if the candidate has no experience in investigation.

Where the disadvantages of working in the investigative unit are great, it can be difficult to attract and retain personnel. The fire department in one ACAP jurisdiction has experienced this problem. The inspection unit of the department offers no possibility for promotion either inside or on transfer back to suppression. Thus, the unit has had such difficulty attracting qualified personnel from suppression that it recently hired two civilians (who do not have prior arson investigation experience) to fill its needs for investigators.

In contrast to the situation in most fire departments, police assigned to arson investigation within a detective bureau may find this experience helpful to their career advancement. Compared to other types of offenses, arson is difficult to investigate and mastering arson investigation may therefore enhance detectives' ability to investigate other crimes. In departments with mobility, assignment to the arson unit may provide a chance for talented individuals to gain recognition and increase their future opportunities.

While individual interest and motivation may be sufficient to produce good performance from investigators over the short term, it is probably no accident that the best investigative units seem to be those with the most stringent selection criteria, best working conditions, and the most appealing career possibilities. Planners and decision makers must give close attention to these matters in developing effective arson investigative capabilities.

3.3 Prosecution¹

Arson investigations are directed toward prosecution and conviction of the persons responsible for arson fires. The prosecutor exercises enormous control over the attainment of those goals because he makes the decision whether to prosecute a case. In addition, it is up to him to make sure that the case is presented effectively in order to win a conviction. Efforts to improve detection and investigation will not result in increased prosecution and conviction if the prosecutor is unwilling to prosecute arson cases vigorously or is unable to prosecute them successfully.

Arson conviction rates are believed to be among the lowest of those for all felonies--about five persons convicted for every 100 arsons nationwide.² There are number of reasons adduced for these low conviction rates. Some observers claim that prosecutors are reluctant to accept arson cases because they are particularly difficult to prove; others emphasize the basic similarities between arson and other types of criminal cases and point to inadequate investigation as the problem. Those who insist that arson cases differ significantly from other major felony cases frequently

¹Initiatives in the ACAP sites towards improving arson prosecution focused more on organizational and managerial strategies than on new techniques to employ at the case level. Therefore, this section also stresses organization and management. For more information on the substantive aspects of arson prosecution, see the course materials on Arson Investigation and Prosecution from the National College of District Attorneys, prosecution manuals developed by the states of California, Florida, and Texas, and training materials prepared by the Rhode Island Attorney General's Office (some of the Rhode Island materials are included as Appendix D).

²Stephen Webster and Kenneth Mathews, A Survey of Arson and Arson Response Capabilities in Selected Jurisdictions (1979), the final report on a survey conducted by Abt Associates Inc., for the National Institute of Justice.

point to the organizational structure and case assignment practices in the prosecutor's office as adversely affecting the prosecution of arson cases. Recent debate has focused on the relative merits of "vertical" and "horizontal" prosecution structures, the desirability of designating special prosecutors for arson cases, and the question of whether the organization of arson prosecution should differ from that of other major felony prosecutions.

In the following sections, we discuss the particular characteristics of arson which may influence prosecutorial strategy and the organizational and managerial characteristics of arson prosecution. We also analyze the strengths and weaknesses of alternative approaches drawing on the experiences of the ACAP local grantees. (The state role in arson prosecution is discussed in Chapter 7.)

3.3.1 Special Problems in Arson Prosecution

The characteristics of arson cases most often cited as posing particular difficulties include the following:

- the need in many cases to establish the incendiary origin of the fire in court without an eyewitness;
- the importance of establishing motive where the case against the suspect is largely circumstantial;
- the complexity of testimony about financial records and transactions which may be necessary to establish motive in an arson-for-profit case;
- the frequent need to rely upon highly technical evidence and expert testimony.

In many common felonies, there is both a victim or complainant and direct physical evidence that a crime has occurred. In arson cases, however, there may be neither. It is often necessary first to establish that the fire was incendiary and that a criminal act occurred. Then it is necessary to build a case against a particular suspect. Often only circumstantial and highly technical evidence (such as laboratory analysis) is available for these purposes.

The issue of motive becomes particularly significant in arson-for-profit cases. To implicate the defendant by developing proof of a profit motive, the prosecutor may need to introduce financial records, tax information, property deeds and transactions, and insurance records. In addition to

introducing and explaining the records, it may be necessary to trace individual involvement through numerous transactions in which dummy corporations are used and the property owners listed on official documents are fronts for those with real interest in the property.

Although these factors are sometimes cited as reasons for prosecutors' avoidance of arson cases, many prosecutors disagree, pointing out that arson cases are not very different from other major felony cases. They argue that it is possible to prove a homicide when the body is never recovered and when the case is based solely on circumstantial evidence, a situation analogous to proving that a crime occurred in an arson case. Certainly arson cases share a number of characteristics with other types of cases. In particular, arson-for-profit cases have many characteristics common to other white collar crimes or economic offenses. Among them are the need to introduce financial records into evidence and the lack of other types of direct physical evidence and eyewitness testimony. The need for the prosecutor to develop the expertise to deal with these complexities is as important for prosecution of arson for profit as it is for prosecution of other major white collar offenses.

Similarly, the prosecutor of an arson case should have some understanding of the behavior of fire and the procedures by which cause and origin determinations are made. Many prosecutors are reluctant to take cases if they are uncertain that the fire was deliberately set or that there is sufficient evidence against the suspect. In order to be in the best position to judge the potential of the case, they need to be able to understand what the investigators and other experts tell them about the evidence relating to the fire's origin. In addition, once he is in the courtroom, the prosecutor will need to understand the technical aspects of the testimony in order to ask the most appropriate questions of his witnesses and in order to conduct an effective cross-examination should the defense call expert witnesses of its own.

Formal training in arson prosecution is available in the form of seminars and short courses sponsored by various national and state organizations as discussed below. Beyond formal training in arson prosecution, it is beneficial for prosecutors to work closely with investigators so that each may learn from the other's knowledge and experience. It may be helpful for the prosecutor to accompany the investigator to fire scenes to see first-hand what must be described in the courtroom. A number of prosecutors who attend fire scenes with investigators report that this experience has helped them to understand the technical aspects and key issues involved in arson cases. In turn, the prosecutor can assist the investigators by providing guidance as to what is required for conviction and directing them to pursue certain avenues in specific cases.

A strategy to provide direct expert assistance to the prosecutor during trial has been developed in Lynchburg, Virginia. Two investigators work together on all aspects of a case and, when the case goes to court, one of them testifies while the second sits with the prosecutor throughout the case. Although under Virginia law all witnesses except the one testifying are excluded from the courtroom, the second investigator may remain throughout the trial since he will not be called as a witness. He is able to provide

continuous advice to the prosecutor and respond to unexpected developments since he is completely familiar with the entire investigation. While this appears to be an effective strategy, it places heavy demands on resources which are justified only in major cases.

The expertise acquired by the prosecutor and the relationship between prosecutors and investigators are important elements in determining whether the prosecutor will accept the case. In turn, the effort put into the case by investigators is likely to be influenced by their perception of the likelihood that the prosecutor will accept the case. Moreover, close communication diminishes the possibility of wasted efforts in cases that are not suitable for prosecution. Both the expertise of the prosecutor and the requisite communication between prosecutor and investigator are enhanced under certain organizational structures which may be implemented in prosecutors' offices. These are discussed below.

3.3.2 Organization and Management of Prosecutorial Resources

Two aspects of case assignment and management may enhance both the ability of the individual prosecutor to pursue arson and the organizational linkages between prosecutors and investigators. These two factors may be summarized as follows:

- Scope of responsibility. Using the concepts of "vertical" and "horizontal" prosecution, this organizational component focuses on whether prosecutors handle all aspects of a case or are involved only in specific stages or proceedings;
- Case assignment. This aspect of prosecutorial structure focuses on the differences between various specialization schemes where cases are assigned to one or a few prosecutors and a general case assignment system.

Many prosecutors' offices are organized by function, with the most experienced attorneys responsible for trying cases in court, and the less experienced attorneys responsible for initial case screening and preliminary proceedings. Under this system, often referred to as horizontal prosecution, each case is handled by a series of attorneys as it moves through the stages of the adjudication process. At the initial screening, all cases are evaluated according to the same criteria, and arson cases are given no special consideration or priority. Case assignment at the time of the trial is made without regard to specialization or expertise. Common practices under the horizontal system include assignment of cases to trial attorneys strictly according to the judge assigned to hear the case or the courtroom in which it will be heard. Under this model, trial attorneys can only accumulate experience with arson cases in a haphazard way. Even more important, perhaps, many arson cases may never survive initial screening where the merits of the case

are judged according to criteria used to screen common offenses. Here, lack of witnesses and the circumstantial nature of the evidence may mean that arson cases are declined.

Vertical prosecution is an approach which has been applied to a number of major offenses in large prosecutors' offices in an effort to overcome the discontinuities introduced by a horizontal system. Under vertical prosecution, a single attorney is responsible for a case from initial presentation or first contact with the investigators through final disposition. The same prosecutor who will try the case does the initial screening and makes all decisions on the case. His experience and expertise are brought to bear on all stages of case processing.

Specialized assignment concentrates all cases of a particular type--in this instance, arson--in the hands of one attorney or group of attorneys. Depending on the office's organization, a vertical or horizontal system is used and specialization may be introduced as early as initial screening or as late as assignment for trial. Whether the attorney handles only arson cases or all arson cases plus other types of cases is likely to depend on the size of the jurisdiction's arson and overall caseloads.

Variations along the two dimensions may be combined in many ways. In some jurisdictions, for example, vertical prosecution may be utilized in select categories of crimes whereas others are handled horizontally. The specialization may occur uniformly at the screening stage where one prosecutor reviews all cases and then decides whether to retain the case for vertical prosecution or to refer it to a generalist. Similarly, arson for profit might be handled by a specialist while other arsons are processed by the general method of assignment.

Examining these two structural aspects in combination produces the alternatives depicted in Table 3.1. Although these combinations may not be pure, there are particular attributes of each combination that should be noted; these are summarized in the figure.

Specialized vertical prosecution of arson cases occurs in a number of ACAP jurisdictions, including Milwaukee and Kansas City. These two cities are good examples of sites where the prosecutor is seen as a unifying force and as an important resource who is available 24 hours a day. In Kansas City, prosecution and investigation staff who were interviewed felt that the prosecutor's expert knowledge and close working relationship with investigators have led to a number of successful prosecutions that would not have been possible under an alternative structure since cases would have been dropped at initial screening. The prosecutor's willingness to take marginal cases has prompted investigators to pursue difficult cases more vigorously.

Kansas City is an interesting example of an office that is neither completely vertical nor completely horizontal in structure. Most cases are handled horizontally but a few offenses, including arson, are prosecuted in a vertical structure. Although originally there was a perception that the position of full-time arson prosecutor was not conducive to career advancement, that perception has changed. Attorneys now recognize that there is a

Table 3.1

Key Aspects of Organizational Alternatives for Arson Prosecution

Case Assignment

	Case Assignment	
	Specialized	Non-Specialized
Vertical: Same prosecutor handles all aspects of case	<ul style="list-style-type: none"> • Caseload likely to dictate the number of special prosecutors and their assignment to arson cases only. • Provides a single contact for the investigators. • More likely to accept and try weak cases. • Minimizes wastefulness as prosecutor can screen out bad cases and advise investigators to avoid legal error. 	<ul style="list-style-type: none"> • Where arson cases are infrequent, jurisdictions may not feel specialization is necessary. • May increase reliance on investigators which is feasible since the same prosecutor will be involved in all stages.
Horizontal: Different prosecutors handle different stages of case	<ul style="list-style-type: none"> • Concentrates efforts of most knowledgeable attorneys at particular stages (e.g., screening or trial) • If specialized resources are concentrated at trial, cases may be inappropriately screened out by inexperienced attorneys; if they are concentrated at screening, lack of expert knowledge at trial • Using specialization for purposes of liaison improves communication with investigators; it does not maximize prosecutorial resources. 	<ul style="list-style-type: none"> • Traditional approach in which arson is handled without benefit of training in its technical and legal complexities. • May lead to reluctance of prosecutors to accept cases due to lack of experience and training. • Cases may drop out at various stages for inappropriate reasons. • Likely to involve little liaison with investigators.

Scope of
Responsibility

CONTINUED

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private sector market for attorneys skilled in handling arson and insurance fraud and are actively seeking the prosecutor's job when a vacancy occurs.

In Milwaukee, the office is organized for the vertical prosecution of all cases. One attorney handled all arson cases for a period of time until the caseload grew too large. Recognizing the merits of specialization, that attorney continues to handle complex arson cases, including all arsons for profit, but simpler arson cases are assigned to other attorneys who handle them vertically.

The non-specialized vertical structure may be selected in jurisdictions which are aware of the advantages of vertical prosecution but feel their caseload is too small to justify specialization. In the city of Lynchburg, Virginia, the prosecutor's office is staffed by four attorneys. A vertical system of case management is generally used but all attorneys handle arson cases. The prosecutor believes that specialization would limit the flexibility necessary in a small office. In addition, the local investigators are highly skilled and able to assist the prosecutor so that his lack of specialized expertise is not detrimental.

In Dayton, specialization exists only at the investigative and screening stages; otherwise there is a horizontal structure. One prosecutor is designated as the contact to provide advice to investigators and to decide whether cases go to the grand jury for indictment or proceed by information. In the former event, that same prosecutor will present the case to the grand jury, whereas in the latter instance, the case is assigned through normal procedures to attorneys in the trial unit. Although the opportunity for early prosecutor participation exists, respondents indicated that it rarely occurs. The prosecutor's office seems generally satisfied with this approach, but prosecutors who try arson cases responded eagerly to an offer of training by the prosecutor designated as liaison person.

The final alternative structure is non-specialized horizontal organization. In Houston, where this structure exists, there is little contact between investigators and prosecutors during case development. Typically, the investigators develop and prepare the case with no prosecutorial involvement and then submit it to the prosecutor's office for filing. In fact, investigators sometimes have to "shop around" among prosecutors in order to get a case filed. The relative lack of prosecutorial involvement in Houston may result, in part, from the fact that the fire department handles all aspects of arson investigation in Houston and, traditionally, there have been few formal linkages between fire and prosecutorial personnel. However, there are indications that informal links are increasing in Houston. Arson Bureau investigators have worked closely on several complex arson-for-profit cases with two attorneys in the Special Crimes Division of the District Attorney's Office. While these attorneys have no formal designation as arson

¹ At times of staff shortages due to turnover, the office may revert to horizontal prosecution as new staff are not yet sufficiently experienced to handle trials and senior staff are too busy to handle pre-trial matters.

prosecutors, they have become, in effect, a regular resource for investigators working complex cases.

Prosecutors have a key role to play in the fight against arson. How fully that role is developed in a particular jurisdiction will depend on local conditions. Several things seem apparent from the experience of the ACAP sites. First, as is demonstrated in Milwaukee and in Salt Lake County, the prosecutor's office may be uniquely situated to provide leadership and coordination to anti-arson efforts. Second, in order for an individual prosecutor to play a leadership role, he must have the time and opportunity to become knowledgeable about arson and to develop working relationships with the investigators. Third, in the sites in which specialized vertical prosecution was implemented, both the prosecutors and the investigators found it very valuable. They stressed that cases were now being prosecuted which would not be accepted for prosecution under another system.

3.4 Other Resources

A number of support services and cooperative relationships are necessary to an effective and efficient response to the arson problem. Adequate and accessible training for all personnel involved in anti-arson activities is a vital resource. Without effective and timely laboratory support, the investigative process cannot function as thoroughly or as quickly as it should. Finally, arson investigation and prosecution benefit from the cooperation and participation of relevant agencies in state and federal government and of components of the private sector, especially the insurance industry. The following sections discuss each of these resources and draw on the experiences of ACAP jurisdictions to describe the ways in which they can aid the investigative and prosecutorial process.

3.4.1 Training

At every point in the handling of an arson case, from the recognition of suspicious signs by fire suppression personnel to the effective presentation of the prosecution's case in the courtroom, specific training can mean the difference between success and failure. Everyone who has a role in the anti-arson effort can benefit from training. Table 3.2 illustrates the types of training needed by various categories of personnel. In this section we discuss the various components of arson detection and investigation training, present the advantages associated with development of courses at the state level, and discuss methods of presenting such courses to local officials. We also address the issue of certification requirements and training standards in arson detection and investigation.

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[illegible]

Training Needs

Fire suppression personnel need training in arson detection in order to increase the probability that signs of possible arson are noticed at the scene and an investigation is requested. Typically the fire suppression officers are responsible for initial cause determination and it is on the basis of their judgement that investigators are called. Firefighters' observations provide important material for investigators and sometimes key testimony in the courtroom. For example, in an arson case where the defendant is the owner of the burned building, the prosecutor may be seeking to prove that the defendant had exclusive access to the building at the time of the fire. Without training in observation and reporting of such details as the condition of doors and windows, it is easy for firefighters to overlook them in their efforts to deal with the emergency of the fire. In addition, it is important for firefighters and fire officers to be aware of legal and evidentiary requirements so that control of a scene is not relinquished prematurely and potential evidence is not thereby tainted. Training in evidence handling must go beyond the legal issues and must include instruction on the need to preserve the scene to the fullest extent possible until investigators complete their examination. Finally, training for fire suppression personnel should include a component on courtroom procedures and demeanor so that they can introduce effectively in court their observations of the scene.

Training for fire and arson investigators covers a broad range of topics and may need to be targeted to specific subgroups depending on the jurisdiction's division of investigative responsibility. For instance, jurisdictions with evidence technicians or photographers need not train all investigators in these specific skills nor must there be detailed training of fire personnel in police responsibilities or vice versa if responsibility for arson investigation is divided between the two departments. However, it is important to insure that investigative personnel are sufficiently knowledgeable about all components of the investigation process so that their contribution is compatible with the efforts of others. Therefore, training for investigators should include all of the topics identified in Table 3.2, but individual programs may vary depending on whether the training seeks to develop practical skills or simply awareness of roles and functions normally carried out by someone else.

Investigative personnel need training in the preservation of the fire scene both in terms of the legal requirements and the physical security of potential evidence. Furthermore, investigators need to be highly skilled in analyzing the fire scene and recording their findings through photographs, diagrams and written or taped reports. Training should be directed toward the identification and collection of all evidence, including samples from the fire scene as well as evidence gathered from external sources such as witnesses and documents. A well-trained investigator not only knows how to gather and package physical evidence but has a sufficient understanding of the scientific analysis used so that the findings may be correctly interpreted. Finally, training to prepare the investigator for court appearances is even more critical than similar training for fire suppression personnel as it is often the investigator who must convey the bulk of the state's case.

The forensic chemist is often a key figure in arson prosecutions. Both the chemist and laboratory technicians involved in the case should be aware of the procedures used in their jurisdictions for collecting, packaging and transporting evidence to the laboratory as well as the legal provisions governing the chain of custody and preservation of evidence. Clearly, laboratory personnel should be skilled in handling fire debris and in the detection of accelerants. Chemists must be knowledgeable about the most sensitive techniques and equipment required for the detection and identification of accelerants. Whenever new equipment is purchased, it is essential that the chemist receive proper training in its use. As with other personnel who are likely to be called as witnesses in court, the forensic chemist should be comfortable with the requirements governing court testimony. (Because of the variability in the quality of laboratories and expertise of chemists in the analysis of fire debris, and because of the unique role of the chemist in the courtroom, there have been suggestions that special certification be required of arson chemists. This is discussed further in Section 3.4.2.)

It is desirable that the prosecutor understand all components of the process of arson detection and investigation in order to develop case strategy and present the case to the judge and jury in the most effective manner. The prosecutor also must keep abreast of the statute and case law governing arson. Encouraging aggressive efforts to prosecute arson may be as important as teaching specific skills.

Outside of the detection-investigation-prosecution chain are insurance adjusters and the public. It is important to note that arson awareness training for these groups may benefit the investigative process by alerting them to signs of arson and the kinds of information which can be helpful to investigators. Insurance claims adjusters are usually able to view the fire scene in daylight and to spend more time than fire suppression personnel examining the scene. If the insurance adjusters are trained to be alert to signs of arson, they may detect suspicious signs that would otherwise be missed. The Massachusetts Fire Academy has experimented with having insurance adjusters attend arson detection courses along with firefighters, and this appears to have been worthwhile. Heightened public awareness also may help build support for anti-arson activities and arson prevention measures. (Public awareness activities are discussed in detail in Chapter Four.)

There are a variety of approaches to providing the necessary training. Training programs currently exist at the national, state, and local levels. Examples of these are discussed below.

Training at the National Level

A number of federal agencies and national organizations offer training to investigators, prosecutors, and laboratory personnel. Table 3.3 summarizes the types of training offered at this level. There is as yet no national standardization of training requirements and curricula, although the

Table 3.3

Training Offered by National OrganizationsTraining Providers

Type of Training	National Fire Academy	U.S. Fire Administration	Federal Bureau of Investigation	Bureau of Alcohol, Tobacco and Firearms	National College of District Attorneys
Arson detection	X				
Arson investigation	X				
Arson prosecution		X	X		X
Analysis of arson evidence			X	X	
Arson-for-Profit Investigation			X	X	

courses in arson detection and investigation given by the National Fire Academy (NFA) have formed the basis of many courses developed at the state and local levels.

The NFA is part of the National Emergency Training Center of the Federal Emergency Management Agency. At its campus in Emmitsburg, Maryland, it offers a one-week course in arson detection and a three-week course in fire/arson investigation. The Academy will pay the cost of transportation to and from the Academy and provide lodging for students sponsored by a state or local government. In addition, the Academy offers courses through its outreach program which is offered at various locations around the country under the sponsorship of state and local training organizations. An 80-hour version of the arson investigation course has been offered through the outreach program.

Individual jurisdictions may take advantage of both the on-campus and outreach programs by sending personnel to attend courses. Many jurisdictions send selected personnel to NFA courses. These officers then return to provide the training to staff at the local level.

The Academy's on-campus program offers some benefits in addition to the training content itself. When staff go to the Academy, they "learn a common language" useful both for reporting purposes and for facilitating inter-agency and inter-jurisdictional communication. By bringing together investigators from different jurisdictions in a setting which encourages informal contact, the Academy helps to establish relationships which foster communication among the various departments represented. Investigators in several ACAP jurisdictions reported that they often contact people they met in training when they wish to exchange intelligence with other jurisdictions or need advice in some aspect of an investigation.

These benefits can be derived from the outreach programs as well. Indeed, at all levels--national, state, and local--common training can help to forge a common identity among inter-agency and inter-jurisdictional teams. When investigators from different agencies (particularly fire and police departments) are brought together as trainees or even in teacher-trainee settings, it tends to help each understand the other's role and break down the barriers to cooperation.

There are a number of training programs for prosecutors and chemists at the national level. The National College of District Attorneys offers a three-day course on the prosecution of arson cases, the FBI offers a seminar on arson prosecution, and the U.S. Fire Administration recently has begun to offer a short training program for arson prosecutors. The FBI and ATF also offer training in the chemical analysis of arson evidence and in the investigation of arson-for-profit cases through national and regional programs.

¹Specific information on admission can be obtained by contacting J. Edward Criswell, Director of Admissions and Registration, National Fire Academy, 16825 South Seton Avenue, Emmitsburg, MD 21727.

Training at the State Level

Almost all states offer some fire service training whether or not they maintain their own training facility. However, fire investigation is not prominent in most state training efforts. A survey conducted in 1981 by the IMR Corporation for the Field Programs Division of the National Fire Academy found that less than one-third of state training programs offered fire investigation training, and that less than five percent of state training resources nationally were devoted to teaching fire investigation. Some state prosecutors' associations have developed training materials and occasionally offer seminars on arson prosecution.

Development of standardized training curricula would probably help to improve the quality of investigation and encourage the establishment of minimum professional qualifications for investigators. Since the NFA makes its training materials available to state and local jurisdictions, and since Academy courses are frequently used to train local trainers, the Academy's investigation course has received wide exposure.

There are strong arguments for the development of standardized state arson detection and investigation courses. State laws and regulations affect arson investigation and prosecution far more than do local ordinances. At the same time, national courses and curriculum packages give insufficient attention to state laws and procedural requirements. Thus, it seems useful for states to develop standardized instructional materials on the legal aspects of arson investigations tailored to the state's own laws and rules. State curriculum developers also can draw on and synthesize the experiences and best ideas of communities throughout the state, a task which would be difficult for local course designers. Moreover, state agencies can assess training needs on a statewide basis and target instruction to their needs. Illinois used a survey of statewide arson training needs to develop its ACAP training component. Standardized courses need not be developed in toto by the states, however. Indeed, those states which have developed courses have generally relied heavily on national curricula, such as those developed by the NFA, with revisions and supplementary material on state-specific topics developed within the state.

The importance of statewide training in arson detection and investigation is underscored by the fact that every state ACAP project included such a training component.

Further, in a number of these states, progress has been made toward the development of standard statewide training programs in arson detection and investigation. Some states are now establishing these courses as standards for state certification. Efforts in this area are described below:

- In Illinois, an ad hoc committee of the state's local Governmental Law Enforcement Officers Training Board recently certified two standard arson investigation courses, one of 40 hours and another of 80 hours. These are now the courses used in the state's arson training program.

- Rhode Island does not offer a state-developed arson investigation course but requires all investigators to take the NFA course in arson investigation.
- In Connecticut, the local fire marshals in each fire department have primary responsibility for cause and origin determination. All marshals must be state-certified by taking a standard course offered by the State Fire Marshal's Office. Although at present only three of the 92 hours of instruction are devoted to cause and origin investigation, there are indications that this situation may be changing. The State's Commission on Fire Prevention and Control, which is offering an arson investigation course developed by ACAP, is working with the State Fire Marshal's Office on revision of the fire marshal's certification course to include more complete coverage of cause and origin determination and arson investigation.
- New Jersey hopes to establish its ACAP-funded investigation course as the standard for the state. This would include requiring community college courses on investigation to follow the state curriculum. New Jersey ACAP project staff also monitor the detection and reporting course currently being offered throughout the state to insure that the content and the examinations meet state standards. There is support in the New Jersey Attorney General's Office for establishment of state certification criteria for arson investigators. These criteria might include regular police training as well as a standard state arson investigation course. Completion of police training would permit investigators to have police powers, including the power to carry firearms and arrest suspects.

There are a number of possible benefits to be derived from involvement of state agencies in the actual provision, as well as the design, of training programs. First, many localities, particularly rural areas and jurisdictions served by volunteer fire departments, may not maintain regular arson investigative staff or other personnel who are trained to conduct the established courses on arson detection and investigation. Nor are they likely to have the resources to hire outside experts to provide such courses. Second, even if local jurisdictions could mount their own training programs, there might be cost savings associated with the state conduct of training on a regional or statewide basis. Third, regional or statewide training may facilitate cross-fertilization of ideas. Of course, which state agency provides the training will depend on the organization of the statewide delivery system for fire suppression and arson control and the existing training programs in the state.

Detection courses offered in the ACAP states range in duration from 12-21 hours while investigation courses are 40-100 hours in length. Since detection courses must reach a very large audience--ideally, all firefighters in the state--most states have adopted a "train-the-trainers" approach. Several states have developed audiovisual packages to facilitate presentation of the course at the local level. New Jersey is attempting to have its detection course shown on a public television station. Since course scheduling presents special problems for volunteer firefighters, arrangements are often made to offer courses in the evening or on weekends so that volunteers may attend.

As noted above, state training sessions provide an opportunity for staff from all over the state to meet and exchange information and ideas. Staff at Connecticut's ACAP project report that numerous valuable inter-jurisdictional contacts were developed through attendance at the state-sponsored arson investigation course. Indeed, several investigators in the class discovered that they were working on the same cases and exchanged useful information on these cases. As a result of the training, the students returned to their jurisdictions not only with vastly increased knowledge of investigative techniques, but also with numerous contacts all over the state on whom they can call in the future for information and assistance.

Unfortunately, like other components of anti-arson programs, "turf" battles among state agencies may undermine training programs. Connecticut offers a good example of how long-standing "turf" conflicts can be resolved. As discussed earlier, the State Fire Marshal's Office has always been responsible for the local fire marshal's certification course. The arson investigation training funded by ACAP is being offered by a different state agency--the Commission on Fire Prevention and Control. There was reported to be some initial resentment by staff in the State Fire Marshal's Office over this arrangement. However, the CFPC's courses were highly professional and very well received and, as a result, better working relationships began to develop. Indeed, the Marshal's office and CFPC worked together on revising the fire marshal's certification course by expanding and upgrading its treatment of cause-and-origin determination and arson investigation. The certification course is now being taught jointly by CFPC and the Marshal's Office.

In general, investigation and detection courses offered under ACAP have been well-attended and well-received. Representatives from many local communities that had been sorely lacking in trained personnel have had an opportunity to receive instruction from experts in the field. The results of this training are already visible. For example, in the period since fire investigators from Union County, New Jersey received the state investigation course, the percentage of fires in that county reported as of undetermined origin has fallen from 40 percent to 10 percent. The component of the ACAP investigative training on selection and packaging of samples for laboratory analysis appears to have had a positive effect. Laboratory staff report that samples received since the training was provided have generally been of higher quality and better packaged than they were before the ACAP training was offered.

In addition to detection and investigation training, states have offered a wide variety of specialized training under the ACAP grants. New Jersey has augmented its efforts in the investigation area with three other

initiatives: arson control planning seminars designed to aid counties in establishing arson units; 35-hour internships for rural fire investigation personnel to observe operations in a large-city arson squad or in the State Police Arson Unit (SPAU); and seminars on "paper chase" techniques and arson analysis presented by the intelligence analysts at SPAU.

Several states have offered courses on fire and arson reporting in support of new or expanded data systems. For example, New Jersey provides instruction on NFIRS reporting as part of its basic detection course. The Connecticut State Fire Marshal's Office sends a state trooper to departments all over the state to explain reporting procedures.

Prosecutor training is included in some state training programs, and states have encouraged prosecutors to attend seminars and courses on arson investigation. The objectives are to inform prosecutors about what is involved in arson investigation, to facilitate their cooperation with investigators, and to encourage their earlier and fuller involvement in the investigation phase of arson cases. One of the state's attorneys in Connecticut is a national authority on the legal aspects of arson investigation and prosecution and has offered seminars on the subject.

Rhode Island has been particularly active in the area of prosecutor training. For example, the state is holding a mock arson trial to expose more of the Attorney General's Office staff to strategies and problems involved in trying arson cases. As part of its ACAP-funded training program, the Assistant Attorney General in charge of the arson unit also has prepared a charging guide and checklist of steps to be used by prosecutors in case processing. The charging guide provides detailed information on the state's new arson statute and the elements necessary to prove each degree of arson covered in the law. The Rhode Island project also produced an excellent summary and analysis of the constitutional issues involved in fire scene examination. This is a definitive and clearly written exposition of the requirements imposed by the Supreme Court's decision in Michigan v. Tyler-Tompkins. Finally, Rhode Island has prepared a clear and precise manual of evidence collection and handling procedures. The Rhode Island arson unit plans to bring together all of this material in a "prosecutor's desk book." The materials on constitutional issues and evidence collection, which might be useful both to investigators and prosecutors, are included as Appendix D to this report.

A number of other states, including Maryland and Florida, have developed manuals on arson prosecution which combine generally applicable guidance on strategies and potential problems with information on state statutes, case law, and procedures. The comprehensive materials on legal aspects of arson prosecution prepared by the State's Attorney in New Haven, Connecticut are also potentially useful to prosecutors everywhere. Jurisdictions may wish to obtain these materials for their own attorneys.

Finally, two other types of training should be mentioned. Several states have plans to hold seminars or training sessions for judges and have sponsored seminars on counseling juvenile firesetters.

In sum, the benefits of statewide training include standardization of instruction, ability to fill gaps in local offerings, and promotion of general coordination in anti-arson efforts by bringing together personnel from many localities.

Training at the Local Level

Local training is an important component of many of the ACAP projects. Some projects devoted resources to training key personnel within the jurisdiction, while in others the emphasis was on providing training to surrounding communities.

Most of the local trainers have attended the NFA's detection and investigation courses. As already noted in the discussions of national and state level training, the practice of using local personnel who have received training to train others in the jurisdiction or in surrounding areas is an important tool in developing a strong anti-arson capability and in fostering coordination and cooperation. As part of an effort to develop regional anti-arson efforts and improve inter-jurisdictional cooperation, the arson squad in Norfolk has been involved in providing training to investigators in the surrounding communities. They have also trained the fire suppression officers in the Norfolk Fire Department in arson detection.

In Dayton, the Arson Abatement Unit conducted three 48-hour basic fire/arson investigation courses for a total of 75 fire service personnel of all ranks. A 40-hour advanced investigation course was presented to 40 people. The 40-hour course dealt with the legal aspects of arson investigation and was attended by area prosecutors, insurance personnel, and electrical engineers. Nine hours of detection training were presented to the line officers of the Dayton Fire Department.

The arson unit in the Lynchburg, Virginia Fire Department provided training to over 60 police officers and Sheriff's deputies who serve as arson investigators in the rural counties, cities, and towns surrounding Lynchburg that are served by volunteer fire departments. The training programs were also open to the state police, insurance industry representatives, and fire and police personnel from other regions of the state on a space-available basis.

In addition to expanding training to a larger geographic area, some of the ACAP sites utilized cross-training within jurisdictions. Much of the training which may take place at the local level at relatively little cost can greatly improve coordination among personnel in different departments and agencies. Under this approach, the prosecutor has the opportunity to instruct investigators in legal elements of an arson case and proper assembly of evidence. At the same time, investigators have the opportunity to teach prosecutors about the behavior of fire and may be able to take them to fire scenes so that they may observe first-hand the physical evidence that will be described in the courtroom. The laboratory chemist has contact with the investigators to instruct them in better selection of samples, while the

investigators may be able to enhance the chemist's knowledge of fire characteristics and evidentiary needs. Under ideal circumstances much of this would occur in ongoing informal interchange as well as in formal training sessions.

In sum, training is a key element in upgrading anti-arson efforts at all levels. In addition to improving skills, it can help to build cooperative relationships among individuals, agencies, and jurisdictions. Federal, state, and local entities, as well as professional organizations and the insurance industry have roles to play in the provision of necessary training. With the expansion of training efforts there is a need for standardization of programs. This also would serve to facilitate the establishment of minimum professional requirements for arson investigation staff.

3.4.2 Laboratories

Successful arson prosecution usually requires establishment of the incendiary cause of the fire. Laboratory analysis of fire debris can be essential if the fire was started or spread by liquid accelerants. If samples submitted to a laboratory are found to have traces of accelerants, that finding is generally presented by affidavit or testimony of the chemist in court. This, together with the testimony of the scene investigator describing the path of the fire and the points from which the samples were taken, can build a convincing argument that the fire was deliberately set. Since many modern materials contain petroleum distillates, the analysis must identify the exact type of accelerant used and establish that it was present in quantities not explainable by the normal composition of the debris material.

Identification of the type of accelerant may be crucial to establishing links to particular suspects if it can be shown that they purchased quantities of the product just prior to the fire, or if fingerprints are found on a discarded container. Identification of accelerants may even help to identify suspects by establishing such links.

There are a number of considerations in the efficient and effective utilization of laboratory facilities. These include the following:

- priority given to analysis of arson samples;
- location of the laboratory;
- turnaround time;
- sensitivity of the equipment;
- extent of in-house library of standard samples;
- training of the chemist and lab technicians; and

- expertise of investigators in selecting and packaging samples.

Laboratory Types, Locations, and Priorities

While some jurisdictions may not have much choice in selecting a laboratory, others may have a number of options. The type of laboratory chosen is important because it may determine the amount of experience in arson work the chemist has or will be able to develop and the priority assigned to the arson samples submitted.

The major advantage of local crime laboratories is their proximity, which facilitates contact between investigators and laboratory personnel and reduces transportation problems. Since the gas chromatograph is the instrument used most frequently for both blood and arson work, arson samples must compete for laboratory time with blood samples to be analyzed for the presence of drugs. In many laboratories, arson analysis suffers from the high-volume competition of drug work. If situated locally, arson investigative authorities may be able to exert greater influence on the priorities of local laboratories.

State and regional crime laboratories may be less convenient to use. Moreover, at the regional or state level a jurisdiction's arson evidence may be competing for equipment and chemist time not only with other types of cases but also with arson samples from other jurisdictions. On the other hand, since they serve a wider area, these labs are likely to handle more arson evidence and the technicians may be more experienced in analysis of fire debris than those in most local facilities. In addition, they are likely to be better equipped. The Miami Valley Regional Crime Laboratory in Dayton, Ohio maintains a trained chemist on its staff. However, in the past, most of the jurisdiction's arson samples were sent to the Ohio State Arson Laboratory, despite extremely slow turnaround, because the regional lab lacked adequate equipment. Towards the end of the ACAP grant period, the regional facility acquired a gas chromatograph, and only then did investigators begin using its services with any frequency.

Out-of-state laboratories may be used when none with appropriate equipment is available inside the state. ATF maintains state-of-the-art laboratories and will process samples from local jurisdictions. However, jurisdictions have had varying degrees of cooperation from ATF in processing their samples.

In considering laboratory options, it is useful to try to estimate a jurisdiction's needs for laboratory time. If a jurisdiction finds that it generates a sufficient volume of samples to keep a piece of equipment such as a gas chromatograph operating full-time, it may consider purchasing the item for a local laboratory with the understanding that it will be used exclusively (or predominantly) for arson samples. Where there is sufficient caseload to justify it, a chemist may be added to the laboratory to work full-time on arson samples, as was done in Kansas City.

If location of the laboratory requires that investigative personnel spend time transporting evidence, this may tax investigative resources and delay submission of samples to the laboratory. Entrusting samples to a departmental courier or shipping them to a distant location increases the danger that a disruption may occur in the chain of custody which the defense could exploit at trial, or that the package will not receive proper handling and the contents will become contaminated.

Laboratory priorities and location can both affect turnaround time. Although some jurisdictions appear to tolerate a long turnaround time without difficulty, quick turnaround can aid the investigative process. Moreover, when a suspect is in custody or authorities are anxious to make an arrest, quick turnaround is essential. In general, laboratory turnaround time seems to be a serious problem in many jurisdictions.

Equipment and Training

Equipment found in laboratories varies from the most up-to-date, sensitive equipment to clearly outmoded equipment capable of detecting only large amounts of an accelerant--not the traces typically left after the more volatile components of the liquid have burned off. Inadequate facilities should be upgraded or alternative facilities found, since failure of the laboratory to detect the presence of an accelerant can be very damaging to a case.

Effective laboratory analysis requires not only sensitive equipment, but also a library of "standards"--identified samples of accelerants whose analysis can be compared with that of the samples submitted by the investigators. Because different gas chromatographs produce slightly different analytical readings on the same samples, it is crucial to have a library of known samples readily available for comparative analysis. However, many jurisdictions have inadequate libraries on hand. Indeed, a local laboratory in one ACAP jurisdiction had no library at all.

Good equipment and facilities will be wasted if chemists are not trained in the special techniques essential to analysis of fire debris. Detection and identification of accelerants requires matching the characteristics of the remaining components extracted from the debris to known characteristics of different substances at different stages of decomposition by fire. A chemist who lacks skill in the particular techniques needed for the sensitive analysis of fire debris, the experience to recognize characteristics of accelerants remaining in fire debris, or the necessary equipment, may do more harm than good. If testimony is introduced in court that analyses were performed but failed to detect any accelerants, the prosecution case will be damaged. As noted above, the experience of Dayton demonstrates that both the personnel and the equipment must be adequate. If they are not, then the location of the laboratory or its turnaround capability are relatively unimportant.

In order to insure that chemists who perform analysis of fire debris, and particularly those who testify in court, are properly qualified, it may be important to establish a certification program for arson chemists and laboratory technicians. Such a certification program might be developed by a government agency such as ATF or the NFA, or by one of the professional organizations of chemists. If certification became widespread, this would provide a valuable measure of laboratories' capabilities in arson analysis.

Even with formal training and certification, however, it seems important that laboratory personnel be able to learn first-hand from investigators about the process of scene examination. In turn, it is important for chemists to participate in the training of investigators to make sure that investigators appreciate some of the technical aspects and limitations of the analysis and the need for the proper selection and handling of samples.

Judicious Use of Laboratory Resources

The ACAP sites vary in the extent to which they use laboratory analysis. In general it appears to be the jurisdictions with access to good laboratory facilities--those with highly sensitive equipment, well-trained chemists, and fast turnaround times--that submit samples frequently, while the jurisdictions that rely less on laboratory analysis seem to have laboratories with outmoded equipment, long turnaround times, or some other deficiency. Interestingly, investigators in some of the jurisdictions with poorer laboratories expressed the opinion that the available laboratory services were adequate. It was clear that their expectations for the laboratory's ability to detect the presence of accelerants and their expectations for the role that the laboratory results can play in an investigation were different from those of investigators in sites making more frequent use of laboratories.

Laboratories can be very helpful during the course of an investigation. Laboratory analysis can provide important information to investigators uncertain about the incendiary origin of a fire or about the involvement of an accelerant. Early identification of substances can even aid in identifying suspects. Even when investigators are confident of their understanding of a fire cause, it is useful to have early knowledge that there is supporting laboratory evidence should the case go to trial.

While it is important for laboratories to have sufficient capabilities to handle their caseloads, it is equally important for the investigators to avoid wasting laboratory resources through indiscriminate selection and submission of samples. Laboratory resources also can be wasted in the attempt to detect accelerants which have vaporized from improperly packaged materials.

To avoid such waste, samples should be selected and packaged by highly trained investigators in accordance with recognized procedures. Some jurisdictions are using portable equipment to assist them in selecting samples. In Lynchburg, Virginia, a portable gas chromatograph was purchased with ACAP funds to screen samples prior to sending them to the state laboratory. The

intent of this procedure was to make an early analysis of the samples selected by investigators so that only the most promising would be sent for more complete analysis. Although investigators were satisfied with the benefits of this approach, they noted that it had not resulted in any significant decrease in the quantity of material sent to the state laboratory.

A number of jurisdictions have experimented with the use of "sniffers" (portable detectors) to identify the best areas for selection of samples. However, there may be drawbacks to the use of sniffers as they may give false positive readings and cannot distinguish between vapors which indicate the unusual presence of a substance and those which may be present naturally in certain burned materials. In the hands of an improperly trained or careless investigator, sniffers can lead to selection of the wrong samples or collection of too many samples in a haphazard manner.

In sum, laboratory analysis can provide key evidence in arson prosecution. However, if laboratories are to be used to best advantage, they must have adequate equipment, properly trained personnel, and the benefit of proper scene work by investigators, particularly in the careful selection and proper packaging of samples.

3.4.3 Utilization of State and Federal Resources

Local jurisdictions may derive great benefit from coordinating their efforts with those of state and federal officials involved in the investigation and prosecution of arson cases. The principal agencies at the state level which may offer assistance are the state fire marshal and the state police. They often have primary responsibility for investigating fires in small and rural communities but may get involved elsewhere as well. Where there is organized crime involvement or extensive arson-for-profit activity, the state attorney general may take the lead in the investigation and prosecution of the case. The state attorney general also may provide direct assistance to local prosecutors in preparing and trying arson cases. (The state role is discussed more fully in Chapter 7.)

There are a number of federal agencies which may become involved in an arson investigation. The FBI has legal jurisdiction to investigate arson when organized crime is believed to be involved. This jurisdiction derives from federal statutes pertaining to organized crime (the RICO statutes--Racketeer Influenced and Corrupt Organizations--and Interstate Transportation in Aid of Racketeering). The FBI also may assist in the apprehension of suspects under federal laws prohibiting interstate or foreign travel to avoid prosecution for damaging or destroying buildings or property by fire or explosives. The same statute prohibits flight to avoid giving testimony in such cases.

A number of other federal agencies may have an interest in the investigation of certain arsons. For example, if a fire occurred on property under their jurisdiction, the Bureau of Indian Affairs, National Park Service,

or U.S. Forest Service might participate in the investigation. In arson-for-profit cases, the Internal Revenue Service or the U.S. Postal Service may become involved. The Postal Service can assist whenever the mails have been used to further a criminal act of fraud--such as mailing the insurance claims form.

In most of the ACAP jurisdictions, the U.S. Attorney's office has not taken an active interest in prosecuting arson cases. Generally, except in major cases involving organized crime, prosecution is declined in favor of the state.

The experiences of a number of the ACAP jurisdictions reveal that the Bureau of Alcohol, Tobacco and Firearms has taken the most active role. Close working relationships, formalized to varying degrees, have been developed between local arson units and ATF offices in Dayton, Houston, Lynchburg, and Salt Lake County. In all four jurisdictions, ATF agents and local investigators work together on cases, with ATF supplying expertise and additional manpower to supplement the resources of the local unit. This relationship has been formalized in Houston where ATF agents and local investigators work together in regular teams. Communication is facilitated in both Dayton and Lynchburg by ATF staff and the local arson unit having access to each other's radio frequencies. The ATF is generally regarded as helpful and cooperative by local investigators in many of the ACAP sites. However, the abolition of ATF has recently been announced and it is not clear at this point what federal agency, if any, will assume its role.

3.4.4 Coordination with the Private Sector

While the specific roles of investigators in the public and private sector are different, their objectives are compatible. The public investigators must make an official determination as to the fire's cause in order to satisfy statutory reporting requirements and to identify fires which are incendiary. Where arson is suspected, the object of the investigation is to identify the persons responsible and amass sufficient evidence to produce a conviction in court. The role of the private investigator, on the other hand, is to provide the insurance company holding the policy on the property with an accurate determination of the fire's cause so that the company can determine whether the claim is legitimate. (If the investigator's report should indicate that some other party may be culpable, the insurance company may attempt to recover from that party through a court action, as in product failure cases.) Thus, the public and the private sector have a common interest in detecting and investigating cases of arson.

The public and private investigators bring complementary capabilities to an investigation. Each can accomplish various tasks more efficiently than the other. The public sector investigators (fire and/or police) have easy access to the firefighters who respond to the scene. They also may have knowledge of local conditions and arson patterns through an intelligence system, their own "street" knowledge, or both. However, fire and police investigators usually lack the capability to commit large amounts of time and

resources to a single case and, particularly in smaller jurisdictions, may be hampered by lack of particular expertise or facilities such as laboratories.

Private sector investigators usually begin at a disadvantage because they are called in some time after the fire, and may arrive from another community with little or no knowledge of the area in which the fire occurred. But they are usually able to commit more time and resources to particular investigations. As a result, they may be able to do a more thorough scene investigation, take many more photographs, hire heavy equipment if necessary to assist in digging out the scene, send samples to highly expert private laboratories, do extensive paper chases and interviewing, and hire accountants to review financial records.

As the agent of the insurance company with whom the insured has a private contract, the private investigator's relationship with the insured differs from that of the public authorities. Because, under the terms of the insurance contract, the insured must cooperate with the investigation if he hopes to have his claim honored, private investigators may succeed in gaining access to a scene where the public investigators need a warrant or to records that the public authorities could obtain only through subpoena, or in inducing the insured to answer questions which would be protected by fifth amendment guarantees in a public investigation. The private investigator also may have access to information on the insured's previous losses through the Property Insurance Loss Register (PILR), a national computerized system for recording and retrieving information on property insurance claims. (The PILR system is discussed in Chapter 5.) PILR also has the potential to be a highly effective means of identifying the insurer of a property.

Insurance companies can assist public investigators in other ways as well. Several jurisdictions reported having been alerted to incendiary fires when a private investigator, on his inspection of the scene, found evidence of an incendiary origin that had been overlooked in the initial scene investigation. Insurance companies have provided assistance to fire and police investigators in some jurisdictions by hiring heavy equipment to move debris or providing expert investigative support that the public authorities could not afford. Observation in a number of jurisdictions indicates that the expertise of city electrical engineers is oriented more to building code standards and less to the kind of analysis required to determine whether a fire caused a short circuit or a short circuit caused a fire. On occasion, insurance companies have paid for electrical engineers with certain types of expertise which government officials lacked. Investigators in Salt Lake County have benefited from cooperation with the local office of the Insurance Crime Prevention Institute which maintains inter-jurisdictional intelligence.

The chief barrier to cooperation between the public and private sectors is the fear of lawsuits. Immunity legislation which has been passed in many states may provide protection for the insurance companies which provide information to the public authorities, but it is not a panacea. Indeed, in some jurisdictions, such laws have been criticized as anti-consumer in orientation. (Immunity legislation and other aspects of insurance industry involvement in anti-arson activities are discussed in Chapter 4.) The degree of

cooperation between public and private sectors is not always related to the existence of immunity legislation. In some jurisdictions with immunity laws cooperation is nonexistent, whereas in other localities cooperation is strong even without such laws.

Actual levels of cooperation between insurers and public arson control agencies in ACAP project sites ranged from very close coordination to no discernable cooperation at all. Several ACAP projects demonstrated a high level of cooperation between insurers and public authorities in arson control efforts. For example:

- Private investigators for the Massachusetts FAIR Plan regularly cooperate with arson investigators and prosecutors in the Attorney General's Office.
- In Salt Lake County, Utah, ACAP project investigators worked closely with the Insurance Crime Prevention Institute (ICPI) in cracking an interstate arson ring based in the county.
- In Broward County, Florida, ACAP arson investigators, working with an insurance adjuster on a major arson fire, succeeded in obtaining an indictment against a local building inspector who attempted to extort the adjuster.
- In Lynchburg, Virginia, the ACAP project team shares information with insurers preparing a civil case when there is insufficient evidence to prepare a criminal case.
- In Norfolk, Virginia, the ICPI accesses information on identity of insurers from the Property Insurance Loss Register and passes it on to public authorities.
- Housing code violations and property tax arrears compiled on properties in New Haven's Arson Early Warning System data bank are used by the Connecticut FAIR Plan in reviewing suspect properties before renewing fire insurance policies.
- The Aetna Life and Casualty Company regional office in San Francisco has developed a standard operating procedure for notifying local fire departments when one of their insured has a fire. That regional office notifies local departments immediately to identify the adjuster. Apart from helping to identify a possibly fraudulent claim, this procedure is also useful to Aetna because the company often wants to demolish a building immediately, since it may represent a hazard and the company also may have a liability policy on the property. An additional reason is that the company may want to start an inventory of contents but does not want to ruin the fire investigators' evidence.
- Investigators and prosecutors in some ACAP jurisdictions have arrangements with the FAIR plans whereby they can quickly and easily receive information on coverage.

These examples suggest that public-private investigative cooperation depends as much if not more on informal arrangements based on individual relationships than on formal legislative and regulatory requirements. Indeed, it is unlikely that legislation and regulations can do much more than help remove some barriers to cooperation; they certainly cannot mandate cooperation. This must be achieved by careful cultivation of productive working relationships based on demonstrated mutuality of interests.

3.5 Summary and Conclusions

A diverse set of skills and resources is required to conduct effective arson investigation and to attack the wide variety of types of arson. Beyond the initial cause determination by fire suppression personnel, the investigation may be organized according to four basic models:

- Divided responsibility between fire and police departments. The most common division of responsibility is where the fire department determines the cause and origin of the fire, and the police department conducts the follow-up investigation and apprehends suspects.
- Exclusive fire department responsibility. Under this model, fire investigators may or may not have peace officer status. If they do not, the police must perform arrests.
- Joint fire/police team responsibility. Such teams operate under a single supervisory authority.
- Autonomous investigation unit. Such units are located outside the fire and police department. They may be headquartered in the prosecutor's office or in the office of the local executive.

A number of factors affect the choice of a model and the implementation of a specific arson investigation strategy. These include the following:

- Primary investigative responsibility. Police and fire personnel both offer important capabilities in arson investigation. Decisions as to primary responsibility usually reflect traditional practice, resource allocations, laws, political situations, and personal relationships among key officials.
- Supervisory structure. The most effective arson investigation units appear to be those operating under a single supervisory authority and with a single supervisor. Moreover, the best overall arson investigation and prosecution programs seem to exist

where there is a single agency or individual able to provide direction. This may be a prosecutor (Milwaukee), an investigative unit supervisor (Houston and Kansas City), or an agency designed to serve a coordinating function (Salt Lake County).

- Capabilities of the investigative supervisor. The supervisor should be knowledgeable about arson investigation and possess strong managerial skills.
- Relations with fire suppression forces. Since most investigations are triggered by firefighters at the scene, good relations between investigators and suppression forces are crucial.
- Size of investigative units. Optimal size depends on size and nature of caseload, task specialization, and support service requirements.
- Specialization within the investigative unit(s). Task specialization may cause discontinuity in investigations, but in large jurisdictions it may represent the most effective deployment of resources.
- Staff scheduling. Scheduling should be based on demand for services and should insure that personnel who must cooperate on investigations work synchronized or overlapping shifts.
- Involvement of the prosecutor. There is considerable variation in extent and timing of prosecutorial involvement in arson investigations. Early involvement is considered by many to produce more and stronger cases.
- Formality of structure and procedures for cooperation. Degree of formalization varies considerably; in some jurisdictions personalities and personal relationships seem more important than formal procedures in producing cooperation.

Several geographical considerations affect the formulation of arson investigative programs:

- Multi-jurisdictional deployment. This usually involves city or county arson units providing investigative assistance or coordination to local authorities within or surrounding their jurisdictions. There is considerable variation in the formality and geographical scope of such arrangements.
- Decentralized deployment. Jurisdictions of large geographical size may consider decentralizing their arson units to improve response time, establish closer relations with suppression forces, and make greater use of local intelligence sources and community group involvement.

Regardless of the location and organization of the investigation unit, it is important to implement policies calculated to select and retain high-quality staff. Such policies include:

- selection criteria for investigation positions which ideally would include formal examinations and minimum standards of training and experience;
- adequate compensation packages; and
- possibilities for promotion and career advancement within the investigative unit or the department as a whole.

Arson investigations are directed toward prosecution and conviction of arsonists. The prosecutor exercises enormous influence over the attainment of these goals by screening cases and controlling their presentation in court. Arson cases may be difficult to win and prosecutors may be reluctant to accept them.

The characteristics of arson cases most often cited as posing particular difficulties include the following:

- the need in many cases to establish the incendiary origin of the fire in court without an eyewitness;
- the importance of establishing motive where the case against the suspect is largely circumstantial;
- the complexity of testimony about financial records and transactions which may be necessary to establish motive in an arson-for-profit case; and
- the frequent need to rely upon highly technical evidence and expert testimony.

Measures that appear to be effective in overcoming these difficulties include the following:

- Early involvement of prosecutors in arson investigation. Prosecutors may attend fire scenes to see first-hand what must be described in court and to offer advice to investigators on case preparation.
- Increased prosecutor knowledge of fire behavior and technical aspects of fire investigation. This may be achieved by attending fire scenes and otherwise maintaining frequent contact with investigators, as well as by participating in formal training programs.

- Arson prosecution structure, aimed at continuity of case assignment, and specialized treatment of arson cases to the extent possible. Specialization at the screening stage is particularly important in guaranteeing that arson cases receive a knowledgeable review.

Training is essential for all personnel involved in every stage of arson investigation and prosecution.

- Fire suppression personnel need training in arson detection. If they are not able to detect signs of arson, no investigation may be requested, and even if an investigation does commence, valuable evidence may have been lost.
- Fire and arson investigators require training in a broad range of topics. This training may be tailored to the jurisdiction's division of investigative responsibility. It should cover technical aspects of investigation as well as evidence handling, legal requirements, and court demeanor.
- Forensic chemists and laboratory technicians require training in analysis of fire debris for the presence of accelerants and in the proper use of all equipment available for such analysis. Their training also should cover procedures for evidence handling and maintaining the chain of custody.
- Prosecutors should be trained in fire behavior and arson investigative techniques and should keep abreast of the statute and case law governing arson. Informal contact with investigators at fire scenes and in the general course of investigations may be as important as formal training in acquiring this knowledge.
- Cross-training. In order to foster coordination and cooperation, it is essential that each category of personnel involved in arson investigation and prosecution have at least rudimentary knowledge of the responsibilities of the others.

Training programs relevant to arson are available at the national, state and local levels.

- The National Fire Academy, Federal Bureau of Investigation, Bureau of Alcohol, Tobacco and Firearms, U.S. Fire Administration, and National College of District Attorneys, as well as other federal agencies and national organizations, offer training. The National Fire Academy training in arson investigation is offered both at the Academy and at other locations around the country through an outreach program.

- The ACAP program was used by state grantees to develop and upgrade state training programs in arson detection and investigation. State arson investigation training is often based on the NFA course supplemented with state-developed instruction on state laws and procedures.
- Large municipalities often provide their own training, particularly in arson detection for firefighters. However, many localities cannot afford or justify their own programs due to size or resource constraints.

Training at the national and state level offers a number of advantages, including the following:

- makes possible standardized training leading to standardized certification requirements for arson investigators;
- provides training on a more cost-effective basis, particularly for staff from smaller jurisdictions;
- provides an opportunity for localities to implement a "train-the trainers" approach; and
- provides an opportunity for cross-fertilization of ideas and development of inter- and intra-jurisdictional contacts which might lead to better coordination and cooperation.

Laboratory analysis of fire debris is often crucial to establishing the incendiary causes of a fire. Some jurisdictions may have a choice of local, state, and national laboratories. There are a number of considerations involved in choosing a laboratory and making efficient and effective use of laboratory facilities. These include the following:

- Priority given to analysis of arson samples. There may be competition from drug work or from arson samples submitted by other jurisdictions.
- Location of the laboratory. Proximity is important for a number of reasons, not the least of which is the greater danger that the chain of custody will be broken in transporting samples to distant facilities.
- Turnaround time. Quick turnaround time can be crucial to investigation success. However, turnaround time seems to be a serious problem in many ACAP jurisdictions.
- Sensitivity of the equipment. Equipment varies widely in the sensitivity of the analysis it can perform.

- Extent of in-house library of standard samples. A library of accelerant standards is necessary for comparative analysis to identify conclusively the materials present in the debris submitted by investigators.
- Training of the chemist and lab technicians. Staff involved in analysis of fire debris should be trained in the latest techniques and the use of available equipment.
- Expertise of investigators in selecting and packaging samples. Investigators should select samples only from the promising areas of the fire scene and insure that they are properly packaged and preserved. Indiscriminate selection and improper packaging of samples can waste valuable laboratory resources and endanger case development.

Local jurisdictions may derive great benefit from coordinating their efforts with those of state and federal officials. The Bureau of Alcohol, Tobacco and Firearms has taken the most active role of the various federal agencies with jurisdiction over arson. A number of jurisdictions work closely with ATF agents. The FBI, IRS, postal service, and U.S. Attorney's Office also may be involved. State police, state fire marshals, investigators, and state attorneys general may also provide assistance to local efforts. (See Chapter 7 for a full discussion of the state role.)

Private investigators may be of great assistance to public officials in the investigation of arson. Private investigators, usually employed by insurance companies, have certain advantages, including the following:

- more selectivity in investigation and thus commitment of more resources to individual cases;
- ability to bring in more expert assistance and testimony;
- possibly easier access to the scene because of owner's need to cooperate with insurer in order to obtain claim payments; and
- greater access to Property Insurance Loss Register data (PILR is discussed more fully in Chapter 5).

On the other hand, public investigators have certain advantages, including easier access to firefighters and law enforcement officials and their records. One of the chief barriers to public-private cooperation is the private sector's fear of lawsuits. Immunity laws may help to overcome this barrier, but they are not a panacea. More important in developing cooperative relations are informal personal arrangements and demonstrations of commitment and mutuality of interests.

Finally, it is crucial that resources be specifically allocated to arson investigation and prosecution. Without the specific commitment to arson, personnel and other resources in law enforcement agencies will constantly be diverted to other priorities which promise a more immediate payoff in terms of arrest or conviction. In fire departments, for example, there almost always is pressure to divert investigative resources to fire suppression.

Even within an active arson unit, if adequate manpower is not available, the easy cases will drain off the available investigative time and leave little or no time to pursue the more difficult arson-for-profit cases which may make up a substantial portion of the problem. A number of the ACAP jurisdictions have established well-functioning units whose manpower levels or very existence are jeopardized by the expiration of federal funding. If jurisdictions do not give these units the support they need, investigative capabilities may revert to their pre-ACAP levels. While the benefits of training and working relationships developed during the ACAP period may persist, it seems that major inroads into the arson problem require continued investigation of a large number of fires. Adequate manpower and resources are essential to accomplish this task.

CHAPTER FOUR

ARSON PREVENTION MEASURES

If arson is to be brought under control, close attention must be paid to prevention efforts. While investigation and prosecution are essential to combat arson--and may also serve as an important deterrent--such reactive steps cannot successfully address the underlying causes of arson. Over the long term, arson can only be stopped by checking its causes, and this can only be accomplished through a proactive prevention program. Nevertheless, few jurisdictions have developed or implemented comprehensive arson prevention programs.

The lack of comprehensive arson prevention programs may be due to the fact that anti-arson efforts are generally administered by fire departments and law enforcement agencies, whose immediate concerns are fire suppression, arson investigation, and arson prosecution, and whose success is typically measured in terms of persons arrested or convicted. Staff in these agencies may not be trained in arson prevention and may not have the authority or resources to initiate all the steps necessary to prevent arson. Indeed, successful implementation of comprehensive arson prevention programs requires the involvement of many groups including key public officials and legislators, municipal line agencies, insurance companies, community groups, and individual citizens. Without assistance from housing officials, insurance companies, and the citizenry at large, fire suppression and law enforcement officials will have little opportunity to do more than fight individual fires and prosecute individual cases, thereby winning battles but ultimately losing the overall war on arson.

In this chapter we discuss the following four major categories of arson prevention strategies which we believe constitute a comprehensive arson prevention program:

- neighborhood self-help and revitalization, with emphasis on community involvement;
- insurance initiatives in the areas of underwriting and claims investigation;
- programs for juveniles; and
- public awareness.

Our discussion of these strategies is based on current literature, opinions of experts in the field, and, to a lesser extent, the experience of the ACAP jurisdictions.

4.1 Urban Arson and Neighborhood Revitalization Strategies

If arson is to be prevented, its causes must be analyzed and understood. This is particularly true of arson in the urban setting, where the problem is most apparent but where factors behind it may be highly complex and misunderstood. In the older deteriorating cities of the Northeast and Midwest, and even certain sections of the newer booming "Sun Belt" metropolises, arson is inextricably tied to all of the other classic "urban" problems: poverty, unemployment, decay, and crime. It is both a cause and a consequence of the entire range of big city problems. Thus, effective action to control arson can represent a turning point for a city or a neighborhood: either it continues to decline and burn, or it begins to show signs of revitalization. This section presents an analysis of the urban arson problem and offers a range of possible preventive strategies which emphasize neighborhood self-help and revitalization.

4.1.1 The Nature of the Urban Arson Problem

The most destructive form of urban arson--the kind that can gradually and inexorably devour whole neighborhoods--is pivotally related to several other urban phenomena, including neighborhood decline and "gentrification." In different ways, these opposing trends can both lead to housing abandonment. Once a building is abandoned, it becomes extremely vulnerable to arson. Abandoned buildings are often easily entered by pyromaniacs or vandals who may set fires accidentally or for "kicks." Unsecured abandoned buildings are also vulnerable to juveniles playing with matches. Finally, abandoned buildings are more susceptible to being torched by profit-seeking owners. In short, abandonment provides the opportunity for arsonists with a variety of motives. The reversal of trends that lead to abandonment can therefore remove the opportunity for arson and bring about substantial reductions in arson incidence.

In order to reduce housing abandonment, it is important to understand its origins in neighborhood decline. Unfortunately, there are several misconceptions about the nature and origins of urban decay. One commonly held misconception is that decay is simply a function of the "aging" of the neighborhood, lack of demand for housing in inner-city areas, or the "flight" to the suburbs. Another particularly cruel misconception involves "blaming the victim" for the arson problem. A serious neighborhood fire problem--especially in a minority area--is commonly blamed on the residents and is often perceived by the public as criminal activity perpetrated by an economic or racial minority. Both of these misconceptions result in a fatalistic attitude toward curbing fire and arson. As one respondent in an ACAP jurisdiction observed: "We gave up on stopping arson in that neighborhood. What can you do about it? It's going to burn anyway, regardless of what we try to do."

It may be that some of the fires in deteriorating neighborhoods are set by residents. These fires stem from a wide range of arson motives,

including juvenile vandalism, spite-and-revenge, pyromania, and welfare fraud (tenants burning their own buildings to obtain relocation benefits). All too often, however, focusing on these immediate causes fails to reveal the root causes of such fires. The underlying causes of housing abandonment and arson can be best understood within the context of two major neighborhood types: (1) neighborhoods predominantly composed of large absentee-owned apartment buildings, and (2) neighborhoods predominantly composed of owner-occupied one-to three-family structures. Each of these is discussed below.

Arson Causes in Neighborhoods Dominated by Absentee-Owned Apartment Buildings

In neighborhoods with concentrations of absentee-owned rental housing, arson is generally linked to vacancy or abandonment of several apartments or a whole structure. Apartment buildings can become vacant as a result of disinvestment (the owner withdrawing from active maintenance and repair) or because the owner sees profit potential in alternative uses of the building. Ironically, the symptoms appear the same, although the background trends--decline vs. gentrification--are very different.

The process of neighborhood decline is often initiated--or accelerated--when long-term stable property owners are replaced by absentee owners whose goal is maximizing short-term gain. Once this process begins to result in increased resident turnover, other owners who have held property for some time may not be able to recapture their current equity if the quality or condition of the neighborhood appreciably declines. Under these conditions, the process of property transfer to new ownership accelerates, often with serious consequences to the neighborhood.

In arson-prone declining neighborhoods, a common strategy used by these new owners is to maximize their short-term yield by "milking" property. Milking is a strategy of gradual disinvestment, in which owners reduce operating expenditures to a minimum while still collecting rents, thereby maximizing net cash flow. Neglect of maintenance and repair expenditures leads to the decline of the physical condition of the property and ultimately to the loss of tenants.

Abandonment may result if the landlord "walks away" when no income potential remains. When the property is sufficiently deteriorated, the owner may have the building "torched" professionally or allow it to be burned by vandals. This arson may permit the owner to reap substantial profit from the insurance proceeds. If it was not emptied of tenants before, the structure may also become abandoned as a result of the fire. In neighborhoods where there is potential demand for rehabilitation, owners have a different incentive which may lead to arson. In gentrifying areas, the current low-income occupants are an inconvenience at the least. At the most, they can prevent an owner from profitable conversion to condominiums or extensive rehabilitation since there are tenant protection laws and regulations in many jurisdictions and under most publicly-supported rehabilitation programs. Thus, emptying a building can be advantageous to the owner when neighborhood trends indicate a potential for other, more profitable uses of the structure (or site).

If an owner is intent on emptying a building of its tenants, it is often extremely difficult to stop him. Landlords have used a number of strategies to force tenants out of buildings. In addition to long-term neglect of maintenance, a common method is nonpayment of utility bills, which results in shutoff of service. Even though these actions are illegal, they may produce living conditions which quickly become intolerable for tenants. Owners have also been known to have small fires started, which result in heating or electrical systems being incapacitated or which otherwise make the building uninhabitable.

In short, the insidious practices of milking and disinvestment lead almost inexorably to housing abandonment and arson, whether or not the owner is actually responsible for setting the fire. In the following sections we discuss in detail some of the major profit incentives for arson in declining or gentrifying neighborhoods dominated by absentee-owned multiple unit buildings.

Arson for Insurance and Tax Benefits. The profits to be made from insurance proceeds represent one of the most powerful incentives for arson. In many cases these proceeds may yield far more than the actual market value of a deteriorated property. Furthermore, where there is potential demand, these proceeds may then be used to convert the property to a more profitable use.

After an insurance-motivated fire, ownership of the property is often transferred to a "straw corporation" to protect its former owner from legal liability. "Straws" are typically individuals or corporations that appear on property records as the owner of a property, but in fact act as a "front" for the real owner. When abused by arsonist/owners, straw ownership can be a highly effective method of eluding responsibility for illegal actions while at the same time reaping the financial benefits of those actions.

While the profits to be made from insurance proceeds are a major motive for arson, another factor that correlates highly with arson for profit is property tax arrears. By not paying local property taxes on a building over several years before the structure is torched, an arsonist/owner is in effect guaranteeing himself an extra cash flow from the building.

In his landmark study of housing abandonment in Newark, George Sternlieb found that non-payment of property taxes was a major incentive in property disinvestment. As the author noted, municipal tax delinquency provides

... an avenue of illegal credit engendering the slowest and least severe form of reprimand. The result is that the city, through tax default, is becoming the unwilling owner of an increasing share of urban realty. Since the city steps in to purchase abandoned properties, it unwittingly encourages owners to destroy through nonimprovement.

¹Michael Stone and Mark Zanger, The Research Manual (Boston: Urban Educational Systems, 1979).

In other words, tax delinquency becomes the incentive for abandonment.

If a building in tax arrears is destroyed by fire, the owner can then walk away not only with the insurance proceeds but also with the greater net rental income on which property taxes were not paid. Municipalities can place a lien on the land to recover the taxes, but in many instances the value of the site is much less than the total of unpaid taxes.

Another source of profits from taxes for sophisticated arsonists is the federal corporate income tax deductions for fire losses. This profit source is of special concern because of its hidden nature. An owner with little or no insurance on a structure can still profit from a fire by writing off the uninsured portion of the loss on corporate tax returns (if the deducted loss is reinvested in another real estate venture). Arsonist/owners have been known to deflect suspicion from themselves simply by reporting to fire investigators that no insurance was carried on their structure.

Profiting from the income tax deductions rather than from insurance proceeds also provides an important ancillary benefit: it ensures that the fire will not be investigated by private investigators retained by insurance companies. In jurisdictions with volunteer fire departments or inexperienced arson investigators, perhaps the greatest threat of apprehension comes from the insurance investigator. If the owner avoids that threat by not carrying insurance or by not filing a claim, the likelihood of being detected is greatly reduced. Depending on the financial circumstances of the individual, partnership, or corporation, an owner could conceivably gain as much--if not more--from deducting the fire loss on tax returns as he could from the insurance proceeds, while at the same time greatly reducing the possibility of being apprehended.

Arson for Condominium Conversion and Other Reuse. A variation on urban arson for profit in absentee-owned apartment buildings occurs in neighborhoods that are in the process of "gentrification" rather than decline. Here arson is used to advance the owner's property speculation goals, and serves as a precursor to a change in property use which generally results in the appreciation, rather than depreciation, of property values. A common example of this form of arson involves use of incendiary fires to accelerate tenant vacancies in buildings undergoing conversion from rental occupancy to condominiums. Arson has also been used to clear parcels of land where existing structures may be a hindrance to redevelopment. In addition, arson for purposes of speculation can occur where renovation is planned to remodel

¹George Sternlieb and Robert Burchell, Residential Abandonment: The Tenement Landlord Revisited (New Brunswick, N.J.: Rutgers University Center for Urban Policy Research, 1973), p. xxxii.

²Alfred J. Lima, "Insurance and Tax Incentives to Arson in Economically Distressed Cities," A Paper Prepared for a Conference on Economic Revitalization of Economically Depressed Cities: The Task Ahead, October, 1980.

buildings for more profitable uses. Insurance gain is often an ancillary profit goal of such fires.

An example of how arson is used in property speculation schemes is found in Boston, pilot city for the Massachusetts ACAP grant. Research conducted for the ACAP project by Urban Educational Systems (UES) points to a strong correlation between condominium conversions and fire, especially since the enactment of a 1980 city ordinance requiring a full year's notice to tenants before they can be evicted for the purpose of converting a building to condominiums. In the Back Bay neighborhood, where condominium conversion activity is intense, there has been an increase in fires since the enactment of the ordinance. UES research on particular structures that are being converted to condominiums also shows a strong relationship between incendiary fires and tenant resistance to the conversions and between fires and particular building owners. These researchers see condominium conversion fires as especially threatening because of the enormous profit available from such speculation. While the infamous Symphony Road arsons in Boston often netted their beneficiaries a two-to-one return on their investment (largely derived from insurance proceeds), condominium conversion arson can result in a return of five or even ten times the initial investment.

Another troubling aspect of such arson eviction fires is that because of their relatively low average loss and insurance claim--estimated at under \$10,000 in the Boston area--these fires rarely attract private insurance investigations. If insurance companies do not investigate these fires, according to some private arson investigators, "no one will."

Federal Housing Program Arson Motives. Although far less prevalent than the profit motives for disinvestment and arson discussed thus far, there is an indirect incentive to arson associated with participation in HUD's Section 8 Substantial Rehabilitation Program. This program provides development incentives to owners of deteriorating property if the rehabilitation plan includes the reservation of a certain percentage of units for low to moderate-income occupants. The rents for these units are subsidized by the federal government, which pays the difference between one-quarter of the income of the occupants and the amount of the rent. The Substantial Rehabilitation Program has grown significantly in recent years. According to HUD figures, current as of July 31, 1981, reservations (applications) for allocations had been received on 2,000 projects nationwide (representing 144,000 units); almost 1,300 projects (95,000 units) had been started, and 700 projects (almost 54,000 units) had been completed.

One of the criteria for eligibility is that the structure be deteriorated and in need of rehabilitation. Some HUD area offices give preference to vacant buildings. These factors have sometimes led unscrupulous owners of marketable housing to accelerate disinvestment in their property in order to

¹Art Jahnke, "Upscale Arson?," The Real Paper, January 15, 1981, p. 11.

²Ibid.

³Ibid.

be eligible under Section 8 guidelines. The requirement that the landlord make relocation payments to current tenants can reinforce this incentive. If the tenants have already left the building, no relocation benefits must be paid.

An example of abuse of the Substantial Rehabilitation Program has been documented by the San Francisco Fire Department's arson Early Warning System project, funded by the U.S. Fire Administration. In one instance, a problem owner of property with substantial code violations and fire history applied for Section 8 rehabilitation assistance but was turned down by the city review office and the HUD area office because the structure was not sufficiently deteriorated and was still occupied. Shortly thereafter, a series of fires emptied the structure of its occupants, and it became uninhabitable. The owner again applied for Section 8, and this time his request was approved. HUD'S insistence that a structure be deteriorated before it is approved for Section 8 assistance has also been found to be a factor contributing to housing disinvestment and arson in other ACAP jurisdictions, including Newark, Boston, and Brooklyn.²

Arson Causes in Neighborhoods with Owner-Occupied One- to Three-Unit Housing Structures

The causes of disinvestment, abandonment, and arson in neighborhoods composed predominantly of owner-occupied one-to three-unit structures may be quite different from those in neighborhoods dominated by absentee-owned apartment structures. Particularly in cities with substantial minority populations, the speculative activity of unscrupulous real estate agents and shoddy mortgage practices have, in the past, caused abandonments, neighborhood decline and, ultimately, arson. These activities and their consequences have been associated with abuse of mortgage programs administered by the U.S. Department of Housing and Urban Development (HUD) through its Federal Housing Administration (FHA).

¹From recent research conducted as part of the Economic Arson Study Program and Early Warning System of the San Francisco Arson Task Force.

²On Brooklyn, see Tom Robbins, "Risen from the Ashes--Section 8 Comes to Crown Heights," City Limits (August-September 1980), pp. 8-10.

³United States, Congress, Senate, Committee on the Judiciary, Competition in Real Estate and Mortgage Lending, Part 2A and B, New York, Hearings before the Subcommittee on Antitrust and Monopoly, 92nd Cong., 2nd sess., 1972; United States, Congress, Senate, Committee on the Judiciary, Competition in Real Estate and Mortgage Lending, Part 1, Boston, Hearings before the Subcommittee on Antitrust and Monopoly, 92nd Cong., 2nd sess., 1971; United States, Congress, House, Committee on Government Operations, Defaults on FHA-Insured Mortgages (Detroit), Hearings before the Legal and Monetary Affairs Subcommittee, 92nd Cong., 1st sess., 1971; United States, Congress, House, Committee on Government Operations, Defaults on FHA-Insured Mortgages (Parts 2 and 3), Hearings before the Legal and Monetary Affairs Subcommittee, 92nd Cong., 2nd sess., 1972.

These abuses have been greatly reduced in recent years due to improvements in program administration. Nevertheless, many neighborhoods are still struggling with the problems of deterioration and housing abandonment that resulted from the abuses of this program. It is important to understand this process of deterioration so that communities may guard against its recurrence.

This process often begins with "blockbusting," in which unscrupulous real estate agents frighten homeowners in ethnic neighborhoods with the real or fabricated threat of an influx of black or other minority residents. When such tactics work, they can lead to a panic of home selling by residents at below-market prices, often to "straws" associated with the agents causing the panic. These same agents then "steer" minority families to buy in the neighborhood at inflated prices, convincing them of the virtues of homeownership while disguising the costs. Of course, there is considerable profit to the agents in the inflated price differential.

Because conventional lending institutions were "redlining" inner city neighborhoods and discriminating against minority buyers, the federal government extended the FHA mortgage insurance programs to them through the Section 223(e) program. That program insured lenders against the risk of default on properties in declining areas. In addition, insurance standards in the other FHA programs were relaxed in order to make credit available to older, but otherwise healthy, city neighborhoods. In the event of a default and foreclosure of a mortgage, FHA/HUD would pay the mortgagee the remaining amount due and would be assigned ownership of the property. For a variety of reasons, including banks' reluctance to use them, most mortgages insured under these programs were originated through mortgage companies.²

The flaw in the programs--and the factor that eventually contributed to abandonments--was that FHA in essence insured the lender against any loss. Mortgage companies could maximize their income and profit by originating as many FHA-insured mortgages as possible, regardless of the ability of the purchaser to meet monthly payments. Indeed, mortgage companies could increase their profits substantially by maximizing foreclosures. They obtained above-market returns on their investment because of the lump sum payment of points up front, but were guaranteed against any subsequent loss by the government.

¹Brian D. Boyer, Cities Destroyed for Cash: The FHA Scandal at HUD (Chicago: Follett Publishing Co., 1973); and Peter M. Greenston, C. Duncan MacRae, and Carla I. Pedene, The Effects of FHA Activity in Older, Urban, Declining Areas: A Review of Existing, Related Analysis (Washington, DC: Urban Institute, 1975).

²Jeffrey Zinsmeyer, Judith Turnock, and Andrew Mott, Opportunities for Abuse: Private Profits, Public Losses, and the Mortgage Banking Industry (Washington, DC: Neighborhood Revitalization Project, Center for Community Change, October 1977), p. 3.

³Ibid.

Thus, "blockbusting" techniques insured not only that real estate agents maximized their income through sales but also that mortgage companies maximized their mortgage originations. Not surprisingly, testimony at Senate hearings uncovered many instances of collusion between real estate agents and mortgage companies.

Because FHA required little or no downpayment on a mortgage under some of its programs, many minority families with marginal incomes were lured into purchasing homes they could not afford. If a family financial crisis occurred, or if any emergency home repair arose, default and mortgage foreclosure frequently resulted. With little or no equity in the property, a family often found it easier to abandon their home than to sink deeper into debt. The structure then remained abandoned and boarded up, under HUD's property management regulations. Or, if HUD sold the property at auction, it could be bought by a speculator, who either resold it at a profit or rented it out and proceeded to "milk" it (as in the case of an apartment building). When the property became uninhabitable, it once again became abandoned and prone to incendiary fires.

Abuse of FHA programs has resulted in neighborhood decline, abandonment, and arson in Detroit, Kansas City, St. Louis, Chicago, Boston, and elsewhere.² In its wake are many embittered victims, both black and white. In Detroit, one of the cities hardest hit by this arson scenario, property owners whose homes were about to be foreclosed by mortgage companies were solicited by fire repair contractors. These contractors, who were told by contacts in the mortgage companies which owners were in default, would convince owners that they could catch up with mortgage payments and pay for much-needed repairs by "being away" when a hired torch selectively damaged their property. Previously fire-damaged furniture would be brought in from a warehouse to replace the owner's furniture. If the owner needed additional insurance coverage, the repair contractors arranged for cooperating agents to provide it. Because of their vulnerable financial position, many owners agreed to this³ scheme; however, few actually received any money from their participation.

This subsection has presented an analysis of urban property abandonment and arson scenarios. We have seen that they can arise under varied circumstances, and can be found both in declining areas and in neighborhoods undergoing gentrification. In the remainder of the section we describe a variety of specific strategies that may be used to reverse the trend toward abandonment and thus address the underlying causes of much urban arson.

¹Ibid.

²Boyer, *Cities Destroyed for Cash*.

³Michael Graham and Jim Newbacher, "Racketeers Burn Out Neighborhoods" (a series), *Detroit Free Press*, July 14-18, 1974.

4.1.2 Prevention of Urban Arson Through Neighborhood Revitalization

A prerequisite for successful arson prevention and control in the urban setting is a strong and widespread belief that the area has a future and that it can be saved from continuing blight and incendiary fires. It is extremely difficult, if not impossible, to mount an effective anti-arson program in a neighborhood when that effort is occurring in a vacuum--when residents, city agencies, and private interests no longer believe in the viability of the area. In such an environment, arson prevention activity represents an ineffective holding action that is ultimately doomed to failure.

Neighborhood revitalization, through self-help rather than through gentrification, may represent the ultimate--and perhaps the only--arson prevention approach appropriate to a number of American cities. Key elements in a neighborhood revitalization program emphasizing anti-arson measures are public-private coordination and community involvement. Individual citizens, community organizations, and private financial institutions alone cannot achieve success; nor can municipal agencies and law enforcement officials. They must all work together to develop community-based programs on which residents and community groups can have a substantial formative influence.

Below, we describe a number of specific arson prevention initiatives, all of which are tied to neighborhood self-help and revitalization. These are organized into two basic categories:

- 1) strategies involving improved legislation and/or regulation, and
- 2) strategies emphasizing joint community-government initiative.

Each subsection presents the range of possibilities under that strategy and draws upon the experiences of ACAP jurisdictions, where appropriate.

Improved Legislation and/or Regulation

One of the most effective ways of preventing the deterioration of neighborhoods and, ultimately, urban arson, is to remove the profit incentive to abuse property ownership. This may require changes in laws or regulations and improved enforcement of existing statutes and rules. In this section, we discuss a number of "legal" actions which may reduce or eliminate the profit in arson-for-profit schemes.

Code Enforcement. Proactive and timely code enforcement is the first line of defense against the neighborhood deterioration that often leads to arson. Without adequate enforcement of housing, health, and fire codes, an unscrupulous owner is free to disinvest from a property until it is no longer habitable. However, if code enforcement occurs too late in the process of

disinvestment, it may have serious unintended consequences, as discussed below.

Inadequate code enforcement may be due to a number of interrelated problems. A major reason that is frequently cited is a shortage of personnel in municipal inspection agencies. Some municipalities pursue aggressive programs of inspection; for example, the Seattle Fire Department inspects every building in the city every year. However, in many cities existing staff may be adequate to respond to specific complaints, but not to approach inspection and enforcement in a proactive manner. Effective action against chronic housing code violators may require, at a minimum, an ongoing program of monitoring "problem" properties and notifying public authorities when these properties are in violation. All too often, by the time a complaint is filed, buildings are so deteriorated that pressuring an owner to compliance can result in financial crisis. This, in turn, can itself suggest arson as an escape. Without adequate staff, however, such proactive efforts may be impossible.

Another problem that is frequently cited as hampering code enforcement is the low level of coordination among public agencies charged with enforcing housing and health codes and with other public agencies working in the housing area. Critics state that this fragmentation can even result in agencies working at cross-purposes. Code enforcement also suffers from a lack of follow-up to assure abatement of violations. Even in those municipalities where enforcement is vigorously pursued, the result may be less than satisfactory. For instance, one ACAP city collects fines on about 70 percent of the cases that it takes to court. However, this effort has been less than successful, in the view of the city's code enforcement director, since most offenders

just pay the fine and walk out of court, because in some cases they feel it's cheaper to pay the fine than to make the necessary repairs. Just because a landlord is fined doesn't mean that you can go back to reinspect the building and it will be fixed. In 90 percent of the cases, the owner pays the fine, and in his mind he thinks the whole matter is done with.

These observations suggest that increased code inspection and enforcement staff and greater coordination among relevant governmental agencies may be desirable if code enforcement is to be an effective tool in preventing abandonment and arson. Furthermore, effective follow-up and the imposition of sufficiently large fines are needed to help ensure the success of code enforcement efforts.

Short of hiring additional municipal code enforcement staff, however, there are two strategies that may be helpful in reducing code violations. One is to require inspection before title to a property can be transferred. Such an inspection requirement would provide current data on the condition of

the property that should be of interest to the purchaser, insurer, and mortgagee, in addition to city inspection agencies. Where such requirements are in force, the inspections are generally performed by private, licensed inspecting firms and are paid for by the buyer of the property. Proponents of this approach argue that such inspections are far superior to the cursory inspections often performed now by insurers and financial institutions on residential and commercial property. Thus, they provide a sounder basis for refusing or setting conditions on insurance and financing. In addition, if these reports were routinely sent to city inspection agencies, municipal code enforcement staff could focus their efforts on following up the specific problems revealed in them.

Another method of supplementing agencies' traditional code enforcement efforts is to use neighborhood organizations to monitor properties. This was implemented with success in the Massachusetts ACAP project. In targeted Boston neighborhoods, organizations notified the Attorney General's Office of "problem" properties; the latter sometimes contacted the FAIR Plan to determine if the Plan insured the property and if an inspection could be carried out. New Haven's arson early warning system (see Section 5.4) is also designed to target buildings with serious code violations. This monitoring system is supplemented with police deterrent patrols and has been cited as a major factor in checking housing disinvestment and arson.

Prosecution of code violators has had mixed results among the ACAP jurisdictions. Housing courts have been established in many communities to expedite the handling of code violation cases. Successful prosecution of habitual offenders is difficult, however. Such property owners are often adept at frustrating the adjudication process by failing to appear in court or transferring properties into new corporate entities so that they can move for a dismissal on the grounds of "improper service." This is a regular occurrence, according to a housing inspection official in one ACAP city. Such owners tell the judge, "We no longer own that building, we sold it," whereupon the case is dismissed and the inspectors are forced to start all over again. In the meantime, the property may become uninhabitable, then vacant, and consequently, a likely target for arson.

The New Jersey state ACAP project has initiated a unique code enforcement strategy that may increase the efficiency of prosecution. An Habitual Offenders Unit has been established in the state's Bureau of Housing Inspection. Its mission is to identify and prosecute property owners with records of substantial code violations and to develop strategies for enforcing compliance rather than simply winning payment of fines.

¹ FAIR Plans are operated as residual high risk insurance pools, whose losses (or profits, if any) are shared by all insurers writing property insurance in a state in proportion to the percentage of premium volume of each company. The Plans were created following the civil disturbances of the late 1960's, when property insurance became extremely difficult to obtain in inner city areas. There are currently 28 Plans in operation.

² Tim O'Brien, "Slum Czar's Tangled World." Newark Star-Ledger, March 3, 1979.

A second type of legal action that can be taken to revitalize neighborhoods is to reduce the profit to be gained from burning a property that is in tax arrears. One such step involves legislation authorizing municipal liens against fire insurance proceeds. Proponents of these liens argue that an owner who has not paid his property taxes will not be inclined to commit arson if insurance proceeds on a fire will be reduced by the amount of outstanding property taxes. In some states, the legislation also includes provisions for municipalities to recoup the costs of demolishing the structure following a fire and for utility companies to collect unpaid bills.

Many insurance companies have opposed the adoption of laws authorizing municipal liens on insurance proceeds because they feel these laws place unnecessary burdens on policyholders, companies, and municipalities. Insurers maintain that lien laws unnecessarily delay claim payments and create ill will against insurance companies. Some insurers oppose these laws because they feel that they are ineffective in combatting arson and because the amount of the lien is often insignificant in relation to the value of the property. If lien laws are enacted, the Insurance Committee for Arson Control (ICAC) recommends that they be modified to incorporate provisions aimed at minimizing the impact on the majority of policyholders and reducing unnecessary paperwork and expense for insurers.

Some cities have begun to address the problem of tax arrearages by instituting "rent-taking" programs. The Boston City Treasurer recently announced that computerization of the tax rolls makes it possible for the city to collect rents directly from tenants living in buildings that are in tax arrears. This strategy may have an unintended consequence, however, by increasing financial stress on the owner, which may in turn be an inducement to arson.

The traditional method of dealing with tax arrearages has been tax foreclosure. However, statutory restrictions, agency staff shortages, and "red tape" often combine to render this process unacceptably slow, for by the time it runs its course, the property may have been "torched," the insurance paid, and the owner disappeared. Some cities have taken steps to speed up the tax foreclosure process. ACAP project staff in Boston, for example, have worked closely with city and housing court officials and have reported some progress.

Action to speed tax foreclosures is appropriate in dealing with landlords "milking" properties. As seen earlier, however, mortgage foreclosure is not appropriate in dealing with one-to four-family owner-occupied homes and homeowners who purchased their properties with the assistance of FHA loans. In many neighborhoods where these mortgage loans were foreclosed, the dwellings were purchased by speculators who reoccupied them with rental tenants. Then the process of disinvestment, abandonment, and arson took hold as it does in multi-family, absentee-owned structures. The appropriate strategy to forestall this process may be to work with the local HUD office to convince mortgage companies or other lenders involved to exercise forbearance rather than to foreclose. Another option is for HUD to assume the mortgage and allow the family to remain in the home as renters until refinancing

can be arranged. In both cases, the desired actions lie with HUD rather than the municipal government.

Two of the target neighborhoods in Boston had an abandonment problem caused in part by the FHA foreclosure process. In the Dorchester neighborhood, the We Can organization developed strategies to address this problem. Properties that were about to be abandoned and had become absentee-owned were targeted for faster tax foreclosure when appropriate. However, if a property was still owner-occupied and about to be abandoned, We Can worked with the owner, the mortgagee, and city and federal agencies to forestall abandonment and assure a continuation of stable homeownership.

Reducing Corporate Income Tax Deductions as an Arson Motive. Reduction of other tax incentives inherent in arson requires monitoring of arson profits enhanced by federal tax deductions. This strategy has been implemented with success by the Seattle regional office of the Internal Revenue Service. That office audits the books of all businesses that have had major fires. Elsewhere, the IRS generally does not analyze business deductions related to a fire unless the taxpayer has been convicted of arson. Only then would IRS conduct an intensive inquiry of its own. The Seattle IRS policy exemplifies the proactive strategies that may be necessary to reduce the profit derived from tax writeoffs of damage from arson fires.

Legal Action Against "Eviction Fires." Eviction fires related to condominium conversion and gentrification have become a problem in a number of major cities. Legal action against such fires is particularly difficult because of the powerful financial incentives for such conversions and because of the difficulty in proving intent.

A potentially very influential housing court decision in Boston could, if upheld on appeal, prove to be part of the solution. In this case, the judge ordered the owners to repair the fire damage to a transient hotel slated for conversion to condominiums and to give the former residents an opportunity to move back into the structure. The decision sought to define a legal doctrine to preserve the landlord/tenant contract from disruption by fire. The judge concluded that "abandonment of property can be halted by insisting on repair and restoration of buildings," and that the owner's contractual responsibility was based on "the doctrine of implied duty to repair." The acceptance of this doctrine as a legal standard could be influential in preventing arson motivated by eviction. The ruling protects property owners by requiring a minimum standard of repairability, "reasonable cost," as a condition for maintaining the owner/tenant contract. However,

¹We Can is a neighborhood organization located in Boston whose principal goal is to improve housing conditions in the Dorchester section of Boston. We Can had a formal working relationship with the arson prevention component of the Massachusetts ACAP project.

²Thomas J. Fitzmorris, et al. v. Beacon Chambers Corporation, Boston Housing Court Civil Action #11372, reported in 2 Mass Supl.195 (1981).

some have expressed concern that the ruling affords property owners insufficient protection and may not stand up on appeal. Moreover, the order to repair the building in question was made contingent on a certain percentage of the former residents agreeing to return. At present, it is unclear whether the requisite number will make the commitment. Thus, the entire effect of the decision remains uncertain.

It might also be desirable to reconsider the impact of laws restricting condominium conversion. By limiting owners' ability to evict tenants, these statutes may have an unintended consequence: the use of arson to accelerate abandonment in order to facilitate conversion. Rent control laws may also increase the incentive toward property reuse and, thereby, the motive for arson. Clearly, however, these laws carry a complex set of benefits and costs; no simple conclusion can be drawn from focusing on arson alone.

Curtailling Abuse of the HUD Section 8 Program. In Section 4.1.1 we described the abuse of the HUD Section 8 Substantial Rehabilitation Program to reap profits from "milking" and burning properties. HUD requires that a structure be deteriorated to qualify for the program. One of the fastest ways to render a structure deteriorated is to burn it. For those owners who are sufficiently unscrupulous, arson can be used to obtain a Section 8 allocation. Theoretically, HUD already addresses this problem by closely screening its applicants and awarding allocations only to developers of proven reputation. Improving that screening process would help to eliminate any developers of questionable reputation who may be passing through this review. Possible ways of improving the screening process include carrying out corporate searches on applicants to identify all parties of interest and inquiring with investigative agencies to determine if the applicant has been connected with previous arsons or fires of suspicious origin.

Another method of reducing the arson incentive in governmental housing programs is to remove the incentive to render the property vacant as a way to avoid paying relocation costs to tenants. For example, when officials in San Francisco identified a property which appeared to be a high arson risk, they worked with HUD to develop a relocation plan for the building's occupants, including payment of moving costs. Following the approval of the relocation plan and the owner's receipt of a Section 8 allocation, the Fire Department's arson early warning researchers determined that the structure was no longer a high arson risk.

Curtailling Abuse of the FHA Mortgage Programs. As previously noted, abandonments in neighborhoods composed largely of owner-occupied dwellings have often originated with the abuse of FHA mortgage insurance programs by unscrupulous real estate agents and mortgage companies. The following strategies should be considered to curtail this abuse:

- preventing blockbusting activity by real estate agents;

- working with HUD area offices to convince mortgage companies to exercise forbearance rather than foreclose on defaulted mortgages--HUD already has a strong program in this area; and
- preventing abandoned housing from being purchased by speculators, and instead attempting to find new owner-occupants.

The Housing Assignment Program allows HUD to assume the mortgages on defaulted property from mortgage companies, while allowing families to remain in their homes as renters until terms could be arranged for refinancing. HUD has been criticized by neighborhood organizations for not implementing this program more widely.

While HUD gives priority to owner-occupants when auctioning its foreclosed properties, many of these properties are purchased by speculators through "straws." To prevent this from occurring, HUD has been cooperating with local agencies and neighborhood organizations in many municipalities to screen applicants for ownership of foreclosed properties. Implementation of such strategies requires that neighborhood organizations take a strong role in abandonment prevention efforts. Organizing around these issues is an important step in revitalization through self-help.

Disclosure Laws. The use of straw ownership arrangements and dummy corporations can impede many of the legal actions which have been described here. Reducing the use of straw corporations in arson-for-profit schemes can be a difficult task. The staff of the civil enforcement component of the Massachusetts ACAP project has attempted to do this through drafting new legislation aimed at requiring fuller disclosure on documents of property conveyance for recording by the Registry of Deeds.

Joint Community-Government Initiatives

All of the strategies discussed in the preceding section require legal or official action, but there is also a key role in them for citizens and community groups. While arson is a public problem because of its criminal nature, it is most disruptive and threatening to the residents of structures and neighborhoods affected by incendiary fires. These people have the strongest vested interest in controlling arson. When effectively organized, residents can be a substantial force in this area, by providing information to the authorities on conditions warranting legal or administrative action and using whatever influence they have to see that necessary actions are taken.

Intelligence and Monitoring Activities. The time-consuming process of investigating arson cases and the overwhelming investigative caseload in some jurisdictions often leave little time for arson squads to conduct in-depth "paper chases" on suspect owners, identify and take follow-up action on "at-risk" structures, or provide adequate surveillance over target areas

or suspect buildings. Neighborhood residents and organizations can provide an important service by assisting with these important activities.

Paper chase investigations into the ownership and financial status of a property involve considerable time and expertise. Because their homes and lives are endangered, neighborhood residents may have the motivation to learn these research methods and to spend hours looking through property records and fire reports. In several urban jurisdictions, neighborhood residents have been provided training in and become adept at paper chase investigations. Urban Educational Systems of Boston has developed manuals on paper chase research specifically designed for community groups. While arson squads and prosecutors are understandably reluctant to accept without question information developed by community groups, it can at least provide a valuable starting point for investigation.

Neighborhood organizations can also assist government agencies in identifying "at-risk" structures. In Boston, for example, community groups were instrumental in implementing an ACAP-funded early warning system in three neighborhoods. (This system is discussed in detail in Chapter Five of this report.) In other communities, residents have been a valuable resource to government staff by notifying them informally of "at-risk" structures and assisting in obtaining corrective action.

Residents often know which owners exchange property (behind the anonymity provided by corporate straws), who the local torches are, and which juveniles are prone to firesetting. In general they are often more familiar with their neighborhoods than are arson investigators who must deal with much larger geographical areas. Local residents are also potentially valuable sources as witnesses and informants. By providing training on what to look for and report, arson squads and other officials could maximize the usefulness of such information to arson investigation and prosecution.

Neighborhood residents and groups may also form arson patrols or develop other arson surveillance strategies. As discussed earlier, vacant and partially-occupied structures are extremely vulnerable to the arsonist. Procedural and legal considerations often result in structures being left vacant for years. Boarding up or otherwise securing abandoned structures will generally be effective in preventing entry by juveniles and vandals. The professional torch retained by a property owner may not be as easily thwarted. Indeed, boarding may provide concealment for torches and inhibit entry by firefighters. However, it appears to us that the advantages of boarding up abandoned buildings outweigh the problems associated with it.

Because surveillance activity is so time-consuming, however, arson squads and police departments with staff shortages frequently cannot sacrifice valuable investigative time for such purposes. Neighborhood residents can complement limited arson squad activity in this area by working with

¹ Interested readers should contact UES for further information on these materials. Their address is: 153 Milk Street, Boston, MA 02109.

squads to monitor properties and notifying squads of situations suggesting imminent arson danger. The "block watch" concept is sometimes applied to arson prevention by community groups, and is similar to the "neighborhood watch" concept applied to general crime control. This approach has been successfully implemented by community groups in Hartford and Boston.

Neighborhood surveillance of at-risk properties and patrol of arson-prone neighborhoods sometimes results in apprehension of torches in the act of setting fires. More commonly, however, such activity can result in the timely discovery of arson indicators, e.g., the quick evacuation of a building's last tenants. Authorities can then be notified of the danger and take preventive action.

In addition, information concerning at-risk structures can be relayed to the insurer of the property for appropriate action. Insurers frequently provide their own surveillance for at-risk structures, but insurers are not aware of every at-risk building and thus could also benefit from neighborhood surveillance efforts. If the insurer follows up with an inspection and cancels coverage because of its findings, a major profit incentive and motive to burn the structure may be removed. Of course, the period between notification and effective date of the cancellation is the time of highest risk during which surveillance is particularly important.

Both Dayton and Massachusetts included neighborhood surveillance efforts as components of their ACAP projects. (These are discussed more fully in Section 4.1.3 below.) In addition, community organizations in Newark conducted patrol and surveillance activity, but were not formally associated with local law enforcement agencies. Kansas City encouraged surveillance of abandoned buildings as part of its overall neighborhood crime watch program.

Community groups represent a resource of great potential value to arson investigative units and other public officials concerned with arson control. Community groups have a powerful stake in the success of arson control programs. They also provide a source of free or at least very inexpensive labor to assist overtaxed investigative units and other understaffed public agencies with a variety of tasks. In an era of almost universal budget stringency, this latter factor is of particular importance.

Thus far, however, community groups have been a largely untapped resource in arson control programs. There are often barriers of suspicion and hostility between community groups and public officials. Arson investigators may see community groups as troublemakers and incompetent amateurs trying to tell them how to do their jobs. Moreover, many investigators fear that community involvement would disrupt the confidentiality necessary to successful case development.

Opposition of public officials to community group involvement is often due to the real or perceived threat posed by community groups to the political and law enforcement establishment. Community organizations are often the most vocal and organized critics of municipal officials. Their

frustration with the lack of progress against arson in their neighborhoods may lead them to see public officials as incompetent and corrupt. This kind of tension seems to lie behind the exclusion, in one ACAP city, of a potentially very effective community group coalition from the activities of the project, even though the group had done extensive research on buildings in the city which indicated the existence of a landlord arson ring.

Effective coordination of public and private anti-arson efforts requires trust based on mutual realization of problems and capabilities. One possible strategy for overcoming mistrust is to give community groups a formal role in official anti-arson programs and to couple this with training and guidance so that they can fulfill their role competently and effectively. As will be discussed below, the Massachusetts state ACAP project successfully employed this approach.

Other Direct Action Involving Joint Community-Government Initiative. There are a number of other important neighborhood revitalization and arson prevention strategies. All of these require some measure of cooperation between public officials and the community if they are to be effective. Rent withholding by tenants in buildings with code violations or other unacceptable conditions is a promising strategy. However, simple refusal to pay rent is not the best approach because of its legal ramifications. A safer and ultimately more effective approach is to have tenants pay their rent into an escrow account. A recent New Jersey law permits municipal ordinances embodying such arrangements. The escrow account may be tapped for repair expenses by a tenants' representative with authorization from a housing court judge following an emergency hearing to review the evidence. Tenant organizations in East Orange, New Jersey have found that the escrow fund has not been used as much as anticipated because owners have generally corrected the conditions before the fund was tapped. Owners report taking this action because the repairs would be far more expensive if the city or housing court judge appointed a private contractor to do the job. The escrow fund strategy therefore seems to have been a useful deterrent to housing disinvestment in this city.

If abandonment cannot be prevented, arson can be made more difficult by instituting board-up, seal-up, and demolition programs. As noted above, buildings may be secured from entry by boarding up or otherwise sealing windows and doors. Ultimately, it may be best to demolish abandoned buildings. In Syracuse, teams of firefighters regularly inspect vacant and boarded up buildings. Open buildings are reported to the building department for follow-up action. The department gives the owner 48 hours to board up the structure; otherwise the city will board it up within seven days. In Baltimore, the ACAP project works with the Housing and Community Development Inspection Division to have vacant structures boarded up or demolished.

As part of the ACAP project, staff of the Massachusetts Attorney General's Office have targetted a Boston neighborhood with a severe abandonment problem for intensive action. They are working closely with Boston city officials to have vacant structures boarded up and sealed.

In Omaha, Nebraska, the ACAP project is working for a change in city regulations which would require owners to board up exposed structures within 48-72 hours; otherwise the city will do the work and place a lien on the property for the cost. In Dayton, a nuisance abatement program directed at abandoned properties results in 200-300 structures being boarded up each month. The extensive abandonment problem in Dayton, allegedly ascribed to the "flight to the suburbs," was blamed by ACAP officials for the large juvenile firesetting problem in the city. According to these officials, the nuisance abatement program has had a substantial impact on the firesetting problem.

Board-up/seal-up/demolition programs are necessary to the effective control of urban arson, but they are not the best way to deal with housing abandonment. As one neighborhood organizer in the Massachusetts ACAP project said, "The best way to fight fires in Dorchester is to take vacant buildings and make them unvacant."

The usual approach to disposing of tax-delinquent and abandoned properties--through public auction--often leads to property acquisition by speculators. This in turn perpetuates the cycle of disinvestment, abandonment, and arson. The preferred approach is to have the property bought by owner-occupants with a vested interest in property maintenance and neighborhood stabilization.

Implementing reoccupancy strategies is not easy, however. The title to an abandoned property must be cleared before it can be transferred to new ownership. This commonly takes two or three years, because most abandoned properties have outstanding municipal tax liens that must be cleared before title may be transferred. This is very frustrating for public officials and residents attempting to fight arson in neighborhoods with many vacant buildings.

In Boston, the We Can neighborhood organization is helping the city and HUD to find appropriate owners for property they would otherwise dispose of at auction. According to the group, many owners of deteriorated properties in Dorchester would be willing to sell them for one dollar to anyone who would pay the back taxes and mortgage payments. However, without an agency willing to act as an intermediary in such transactions, owners commonly abandon the property.

As part of its civil enforcement effort in arson prevention, the Massachusetts ACAP project has prepared legislation that could solve the problem of long delays in disposing of abandoned properties. This law would allow municipalities to take "decadent property" by eminent domain and transfer it to new ownership when such property poses a risk to neighboring structures.

Another approach to revitalizing deteriorated or abandoned structures is to explore alternative ownership strategies. This applies principally to multiple-unit buildings. Most abandoned multi-unit residential structures have undergone a protracted process of disinvestment by their owners and may

be stripped of their valuable fixtures. They are often in fire-prone neighborhoods shunned by responsible owners and lending institutions. Such structures may be occupied by tenants when the mortgagee is forced to foreclose on the property. Lenders are generally reluctant to take this course because management of properties often entails responsibility for correcting code violations. Therefore, such properties are generally disposed of at auction where they are often purchased by speculators or slumlords.

If a city becomes the owner of such property through tax foreclosure, the situation is often worse, for few municipalities have the desire or capability to manage residential property. Perhaps the worst possible situation of this type occurred when one major city decided to shorten its foreclosure time from three years to one year on tax delinquent property. The city soon found itself the owner of 9500 deteriorating apartment structures with approximately 35,000 housing units, and no workable management capability to maintain the buildings and care for the needs of the residents.

The first requirement in implementing alternative ownership strategies is emergency interim management for the extremely vulnerable period between mortgage or tax foreclosure and new stable ownership, when the structure is particularly susceptible to abandonment and incendiary fires. The emergency management collects rents and maintains services during this transition period. Banks generally retain property management companies to manage their foreclosed property until the structure is sold at auction. New York City created the In Rem program, which also allows community development corporations to serve as interim managers for the city.

A far more preferable alternative to auction sale is to develop a strategy that is specifically directed at renovating the structure and preparing it for long-term stable ownership. An excellent example of this is the work of the Apartment Improvement Program (AIP) in Hartford, one of the demonstration cities of the Connecticut ACAP grant. The AIP, a program of the federal Neighborhood Reinvestment Corporation, is modeled on the Neighborhood Housing Services (NHS) program, which concentrates its activities in neighborhoods with predominantly owner-occupied structures.

Like NHS, the AIP program emphasizes local control and speedy decision-making. These are made possible by the use of conventional lending from local thrift institutions and the structuring of a formal cooperative relationship among community residents, lenders, and the municipality. The AIP approach has resulted in renovation of a number of large residential structures and their reoccupation by former tenants at rents only slightly higher than the rents charged when the building was in poor repair. Some properties have been turned into cooperatives owned by their former tenants.

Among the virtues of the AIP approach are that it is fast, reasonably inexpensive, and solves the issue of displacement that is often a by-product of renovation efforts in arson-prone neighborhoods. By contrast, a community development corporation that is renovating torched apartment structures in the Symphony Road area of Boston using HUD Section 8 funds is finding that few neighborhood residents will be able to afford to live in these renovated units.

4.1.3 Combatting Urban Arson Through Community Involvement

Two ACAP jurisdictions have made noteworthy attempts to involve community groups in their anti-arson programs.

The Massachusetts State Project

The Massachusetts ACAP project combined elements of a comprehensive abandonment prevention program with significant community involvement. This effort is directed at three arson-impacted neighborhoods in Boston. Project funds were used to provide training and technical assistance to neighborhood groups in these areas. Project staff worked with neighborhood organizers to identify at-risk structures in the three neighborhoods and conducted a preliminary survey to isolate buildings with problems that could lead to abandonment and arson.

Once at-risk structures were identified, neighborhood groups were encouraged to take part in patrols. One organization established block clubs to monitor abandoned and vacant structures. Property owners, concerned about the threat to their lives, their properties, and to the viability of their neighborhoods, were heavily involved in this activity.

The concept of surveillance was broadened to include not only the property but also the property owner. Owners of "problem" properties were often called into the Attorney General's office to "confer" about the problems. Where appropriate, city officials were asked to concentrate code enforcement efforts on such properties when this would not increase the risk of arson. Project staff also worked with the neighborhood organizations to convince tenants to remain in their buildings.

In general, relations between project staff and community groups were cordial and productive. Project staff believe that coordination with neighborhood groups in Boston has produced significant and measurable results: the rate of housing abandonment has noticeably slowed in the target neighborhoods and, while Boston as a whole experienced a 27 percent increase in major fires in 1980, the three target neighborhoods showed slight decreases.

Several factors emerge as key elements in the Massachusetts approach:

- existence of concerned and committed community groups;
- official receptivity to community group participation;
- formal and specific integration of community group role in the ACAP project and its activities;

¹Of course, such results may be partly due to regression artifacts or other unknown factors and cannot be attributed solely to project effectiveness.

- training for community groups in "paper chase" research and other arson control activities; and
- feedback to and monitoring of community groups in their ACAP project work.

As noted above, the lack of support from public officials seems to be a major factor discouraging coordination with local organizations in arson control efforts. In some jurisdictions, proposals for such coordination are greeted with active political hostility. Boston benefited from having a neighborhood organization long active in arson control which, in 1977, had presented the Attorney General with information which contributed to the indictment and conviction of the participants in a major arson ring. This prior relationship fostered a mutual respect between the Attorney General and the neighborhood group that served to prepare for a closer relationship when ACAP funding became available.

The lesson of the Massachusetts experience is the valuable role that community groups can play in arson control and neighborhood revitalization efforts if given the chance to participate.

The Dayton Project

Public-private coordination and cooperation with neighborhood groups have also been important features of the Dayton ACAP project. The city's Office of Neighborhood Affairs maintains several regional offices which incorporate a number of neighborhoods. These regional offices each have their own resident advisory committees, called priority boards, which help the city to set policy and priorities in the area of neighborhood revitalization and arson prevention. Through their local Neighborhood Affairs offices, the priority boards assist in code enforcement and other city housing maintenance activities in their neighborhoods. Community groups have also influenced policy in other, less direct ways. For example, the St. Ann's Hill Association was instrumental in obtaining media coverage of a rash of fires in the neighborhood. This resulted in public pressure that led to the imposition of a curfew over the city aimed at curbing activities of adolescent firesetters.

Dayton has targeted several neighborhood revitalization areas for concentrated activity. These neighborhoods have a significant percentage of vacant investor-owned properties subject to arson. Priority for funding of housing rehabilitation efforts goes to those areas that have the strongest awareness of and commitment to reversing the decline of the neighborhood and which have demonstrated success in "bootstrap" revitalization efforts.

Dayton's central and regional affairs offices not only coordinate city agencies' activities and provide a vehicle for community influence on policy-making, but also play a major role in integrating private funds

into neighborhood revitalization efforts. The City-Wide Development Corporation, a publicly-funded non-profit agency, acts as a conduit and coordinator of private and public funding for revitalization efforts in Dayton. An example of City-Wide's coordinating and expediting role is its program of low-interest home improvement loans. Because local banks do not provide mortgage loans to many of the deteriorated properties in the revitalization areas, City-Wide provides rehabilitation loans to allow owners to renovate properties to acceptable standards. Then the properties may qualify for long-term conventional mortgage loans. The corporation also provides home maintenance counseling for homeowners and has a fund for acquiring sub-standard property unwanted or abandoned by its owners.

Because many local savings and loan institutions were wary of investing too much of their portfolio in Dayton's inner neighborhoods, City-Wide helped to form RECOP, a profit-making stock company that allows all member savings and loan institutions to share in its loan portfolio in relation to the stock owned. City-Wide funneled some of its HUD Community Development Block Grant funds to RECOP to allow it to make low-interest loans in revitalization areas to complement conventional lending.

The experiences of Boston and Dayton show that public-private coordination can work in the effort to revitalize declining neighborhoods and to combat arson. Indeed, their success underscores the importance of community involvement in successful anti-arson efforts.

4.2 Insurance Initiatives

Fire insurance proceeds provide a major share of the profit incentive in arson-for-profit activity and the insurance industry has been criticized for not correcting those insurance practices that are alleged to contribute to arson. While it would seem to be in the best interests of insurers to control arson in order to reduce their own losses, the industry is accused of doing little to curb arson because it can simply pass on the additional costs to consumers by raising premiums.

Insurers, on the other hand, maintain that the insurance incentive tends to be overstated as an arson cause. They argue that the industry is doing its share but is prevented from doing more by competitive market forces and by consumer-oriented state insurance departments.² In addition, insurers maintain that legal considerations prevent their participating more directly in law enforcement anti-arson efforts. Finally, the industry

¹ United States, Congress, Senate, Committee on Governmental Affairs, Arson for Hire Hearings, before the Permanent Subcommittee on Investigations, 95th Congress, 2d session, 1978.

² Insurance Committee for Arson Control, Current Arson Issues: A Position Paper, Chicago, Illinois: ICAC, 1980.

asserts that arson control is principally the responsibility of law enforcement agencies and that insurers should take only a secondary role in this effort.

Close examination of the dynamics of the insurance industry's posture toward arson suggests that its critics and defenders are both right: companies could do more to eliminate practices that tend to contribute to arson, but are discouraged from doing so by competitive issues, consumer-minded regulators, and legal considerations.

In discussing the insurance "industry" here, it should be noted that the industry is by no means monolithic, but is composed of hundreds of individual companies, each with its own policies and each operating in a fiercely competitive environment. Within this environment exists a continuum of companies, ranging from those that are initiating exemplary arson control measures to those that are making little or no effort in this area.

In this section, we discuss the relationships between arson and various aspects of underwriting and claims investigation. We also discuss possible anti-arson strategies in each of these areas.

4.2.1 Underwriting

The Problem

Critics accuse insurance companies of increasing the incentive to commit arson for profit by practicing or allowing careless underwriting. Because insurers rarely conduct property inspections except on larger properties, these critics argue, they are often unaware of the condition or arson risk of properties bound for them by agents. Properties may also receive renewal coverage even though their owners may be disinvesting from them and rendering them more arson-prone, because inspections are made even less frequently for renewals than for new coverage.

Companies are also accused of encouraging overinsurance by approving requests for coverage increases and by practicing the agent commission system

¹ Statement prepared by James E. Jones, Jr., Government Affairs Representative of the Alliance of American Insurers, to the Senate Permanent Subcommittee on Investigations of the Committee on Governmental Affairs, dated October 6, 1978.

² United States, Congress, Senate, Committee on Governmental Affairs, Permanent Subcommittee on Investigations, Staff Study of the Role of the Insurance Industry in Dealing with Arson-for-Profit, 96th Congress, 1st session, 1979, p. ii.

³ Ibid.

which encourages placing as much coverage as possible in order to maximize agent and company profits.

The FAIR Plans have been accused by the General Accounting Office and others of encouraging arson by insuring obviously arson-prone structures, even when the Federal Insurance Administration has allowed the plans sufficient underwriting flexibility to reject high-risk properties.²

Insurers maintain that a major factor discouraging more careful screening of arson risks is the competitive environment of the insurance industry. According to this point of view, such screening would require more work from independent agents, and longer applications. According to a recent report on arson issued by the Insurance Committee on Arson Control (ICAC), "the company that asks too many questions might lose business because of the inconvenience" to agents and applicants for coverage.

The ICAC also maintains that mandatory inspections for all property would be very expensive and wasteful, since the great majority of properties are not arson risks. An insurance representative on one ACAP task force argued that "with all the time in the world to inspect, companies still won't do so because of marketplace factors." Companies generally inspect only larger commercial coverages, he stated, and

if the business is already on the books, they wouldn't ordinarily conduct an inspection. That's a cost and a delay and there's a lack of manpower. If it takes two to three weeks to get \$50,000 more premium volume on the books you're probably not doing your job--especially where the party is already a client or it's a broker you respect.

Practices vary widely among companies, said this representative, and "for a wily arsonist, it's easy to apply for insurance with a company where he can avoid inspection."

The relationship between insurance company and agent is a mutually dependent one, and companies are generally reluctant to question the risks bound by agents who send them a large volume of business. Companies prefer to trust the judgment of agents to send them business that falls within predetermined underwriting guidelines. In the great majority of cases, this trust is well-founded.

¹ U.S. Congress, Senate, Arson for Hire, p. 130.

² US, Comptroller General, General Accounting Office, Arson for Profit: More Can Be Done to Reduce It. Washington, D.C.: Government Printing Office, 1978.

³ Insurance Committee for Arson Control, Current Arson Issues. p. 11.

It is the insurer's responsibility to monitor the risks being underwritten by its agents. If an insurer allows too much latitude, the agent is in danger of abusing his underwriting authority simply to maximize his commission income. If a company signals its brokers that it will accept questionable business (for the sake of maximizing income and growth), brokers will generally be happy to oblige.

One company, eager to maximize its growth and expand its market, became known for undercutting the competition. That company extended its underwriting "pen" to 700 agents who were paid flat commissions with no connection to the profitability of the business they were writing. According to one competitor, "they had a reputation for writing anything at any price. You could almost bring them a burning building, and they'd write a policy on it." The company was eventually rescued from financial collapse by infusions of millions of dollars in fresh capital. This company was no minor actor in the insurance arena; in 1978 it had become the 64th largest property/casualty company in the country, with net written premiums totaling \$263 million. In that same year, a state arson strike force operating in Lowell, Massachusetts, found that this insurance company was the insurer of a major portion of torched properties under investigation in that city.

Experienced observers maintain that it is easy for an arsonist/owner with good connections to find obliging brokers willing to take virtually any risk on behalf of unsuspecting companies. An executive of a major insurance company stated recently that there are "a lot of irresponsible brokers--stupid, greedy, criminal or all three--placing business...today." Most brokers are highly reputable individuals who take their responsibility to their companies seriously; however, as with problem property owners, only a small number are needed to create a very serious problem.

Critics also maintain that insurance companies can minimize their own risk in covering arson-prone properties through reinsurance. Reinsurance is the insurance that companies buy on the risks that they write; through reinsurance, a company can pass all or part of the risk on a block of business to another insurance company for a percentage of the premium income. If a primary insurer elects to reinsure 100% of a risk, it can make a risk-free profit on that part of the commission it retains for producing and servicing the business. Reinsurers, in their turn, can reinsure all or part of the same risk while taking their percentage of the commission.

¹ Suzanne Wittebort, "Bailing Out Bellefonte," Institutional Investor (December 1980), p. 112.

² Ibid.

³ Ibid.

⁴ Lynn Brenner, "Why the World Reinsurance Market Has the Jitters," Institutional Investor (January 1980), p. 180.

Critics within the industry charge that some reinsurers are careless about the risks they insure because they can maximize income from investment of premiums. Newer entrants into the reinsurance market are especially prone to careless underwriting practices simply to maximize income. "There's irresponsible underwriting or no underwriting going on," according to a Lloyds of London underwriter. "Sanity has departed from the reinsurance business."

Another recent phenomenon that could make it more difficult to tighten underwriting practices is the emergence of the "surplus lines" market. Surplus lines insurers are not directly regulated by state insurance departments and are theoretically allowed to provide only that coverage that is not available in the voluntary or FAIR Plan markets. One FAIR Plan official in an ACAP state noted that surplus lines carriers are replacing the FAIR Plan as the insurer of last resort in those major metropolitan areas with the most severe arson problems. In the arson-prone areas of the Bronx and Brooklyn, researchers for the New York City Arson Strike Force are discovering that high arson risks that would have been insured by the FAIR Plan several years ago are now almost always covered by surplus lines carriers. Indeed, Strike Force researchers have found that the "vast majority" of buildings they have identified as high risk in New York City are insured by surplus lines carriers. Researchers for neighborhood organizations in Brooklyn--the Peoples' Firehouse and the North Flatbush Arson Research Project--have found that almost all of the owners of high arson risk properties they have identified cancelled their FAIR Plan policies in 1975. Surplus lines fire insurance was being offered by a Lloyds syndicate to New York City property owners at about that time for about one-third of FAIR Plan rates. This scheme, devised by a Florida underwriter who was given binding authority by the syndicate, was subsequently disowned by Lloyds and the policies cancelled, but Lloyds still honored the claims from this one book of business, losses from which are expected to exceed \$32 million. However, the risks in this book were subsequently picked up by a succession of other surplus lines carriers, some of whose agents and officers are alleged to have connections to organized crime. In sum, available evidence suggests that the unregulated environment of the surplus lines market is providing an opportunity for arsonists that would otherwise not exist.

¹ Ibid., p. 178.

² Lynn Brenner, "Lloyds Syndicate Cancelling U.S. Commercial Fire Policies," Journal of Commerce (May 15, 1978), p. 9.

³ Ibid.

⁴ Alfred J. Lima, "Insurance Fraud, Organized Crime and Arson-for-Profit: An Example of Abuse in the Non-Admitted Insurance Market," an unpublished research paper prepared for the U.S. Fire Administration (June 19, 1980).

⁵ Alfred J. Lima, "The Influence of the Non-Admitted Insurance Market on Arson-for Profit," an unpublished paper prepared for the U.S. Fire Administration (April 10, 1980).

Possible Solutions in the Area of Underwriting

Suggestions for improved underwriting have centered on the development of a comprehensive insurance application. The industry position on this proposal is that if such an application is used, it should: (1) be restricted to that "mono-line" commercial coverage (fire insurance--as opposed to comprehensive, multi-peril insurance--on commercial and multi-unit residential structures) that tends to represent the highest arson risk; and (2) be mandatory for all carriers. The limitation of the requirement to mono-line commercial coverage would remove strong industry objections based on the excessive cost and delay involved in applying it to all property. The requirement that all carriers participate would remove the objections based on competitive disadvantages.

Most FAIR Plans require an application and inspection for all but owner-occupied and small residential structures. Many FAIR Plans have recently adopted the Federal Insurance Administration regulations which allow them to practice stringent underwriting standards and to cancel a policy on a high-risk property with only five days notice. FAIR Plans in the ACAP sites are generally aggressive in refusing coverage or policy renewal on properties that represent high arson risks. However, in at least one site, these rejected properties were thought to be finding replacement coverage with surplus lines carriers.

The Massachusetts FAIR Plan has recently added tax arrearage as a reason for refusing or cancelling coverage. If an owner is in arrears for over one year without an acceptable explanation, the Plan now considers this sufficient reason to decline or cancel a policy.

On the question of overinsurance, the Insurance Committee for Arson Control maintains that no one standard for determining indemnification can be established.² Because case law varies in each state, they maintain, the definition of actual cash value differs from state to state. Therefore, the committee suggests that "each individual risk must be evaluated in light of various factors existing in relation to such risk and insure adequate coverage without encouraging arson fraud."³

The potential problems posed by reinsurance (which may allow primary insurers to be less careful in their underwriting practices) and by the opportunity and latitude offered arsonist/owners in the surplus lines market, are real and serious. They deserve further study by the insurance industry and regulatory bodies.

¹ Insurance Committee for Arson Control, Current Arson Issues, p. 14.

² Ibid.

³ Ibid., p. 15.

4.2.2 Claims Investigation

In Chapter Three, we discussed coordination between public and private investigation from the point of view of public authorities. In this section we discuss the role of insurance companies in claims investigation.

The Problem

Criticism of insurance companies in the area of claims investigation centers on their uneven record of cooperation with public authorities in arson investigation and prosecution. Insurers are said to pay claims even when the fire department has determined the fire to be suspicious and is conducting an investigation. Indeed, companies are accused of failing even to check with fire departments to determine if a fire is considered suspicious.

The effectiveness of laws authorizing municipal tax liens on insurance proceeds has been hampered by resistance from insurers. On only about 9,000 of the approximately 90,000 fires in New York City in 1980 did the Finance Department receive inquiries from insurers as to whether there was a tax lien on the property.

In general, many observers feel that insurers often fail to share useful information with public authorities. This includes failure to identify themselves as insurers of burned properties and to notify authorities when they cancel the policy on an arson-prone building. The latter information is very important because the period from the date of notification to the effective date of cancellation (generally from 5 to 30 days) is extremely dangerous from the point of view of arson risk. Local officials maintain that if they were notified by the insurer, they could provide surveillance over the building during this critical period.

The attitude of insurers toward fire claims investigation, as perceived by many investigators and other public officials, is summarized in the following statement made during recent Senate hearings on arson:

If they [insurance companies] can get out for less than the face value of the policy, and they don't have to hire an attorney to handle the claim in court, which costs them more money, they are willing to settle without any big hassle.

Insurers rarely retain the services of private fire investigators unless the loss is above a certain threshold amount. Arsonist/owners are

¹ U.S. Congress, Senate, Arson-for-Hire, p. 94.

often aware of this fact and know that a series of small fires is "safer" than one large one.

While it would seem to be in the best interests of insurance companies to cooperate with authorities and to contest suspicious claims, in practice there are substantial prohibitions and disincentives that prevent or discourage insurers from doing so. For example, if the policyholder cannot be implicated in arson or fraud, the insurance company is required by law to pay the claim, even if the fire is determined to be arson. Even when a policyholder is suspected of arson or fraud, financial considerations often militate against contesting the claim. Rather than incur the expense of legal action, risk punitive damages suits, and perhaps alienate brokers and thereby lose business, insurers often prefer to compromise on claims.

Some companies also avoid "going to the mat" on all but the most blatant and costly arson claims because they fear that policyholders will file complaints with state insurance departments under Unfair Claims Settlement Practices provisions of state Unfair Trade Practices Acts. These companies feel that frequent complaints will saddle them with anti-consumer reputations. This, in turn, could prejudice company efforts to contest more serious arson claims. The opinion of state insurance departments is reported to be especially important in influencing the claims decisions of surplus lines carriers, since such companies commonly place insurance in a state solely at the discretion of the insurance department. The threat of being placed on a "black list" because of excessive consumer complaints may have a chilling effect on an insurer's inclination to contest a suspicious claim.

Unfair Claims Settlement Practices provisions also tend to reduce the flexibility of insurers in contesting claims. These provisions require insurance companies to notify the policyholder, within a specified period, of the reason for withholding a claim payment. If the company informs the policyholder that the settlement is being delayed because of suspected fraud, it may be open to suit for bad faith or defamation of character.²

An insurer on the San Francisco ACAP task force complained that a recent California law worsened the situation there by substituting a requirement for settlement "as soon as possible" for the previous explicit 60-day limit. "Now it's ambiguous in favor of the insured," he said, and the law has "taken the teeth out of our time to maneuver."

Statutes requiring payment of back taxes or mortgage balances from fire loss settlements also tend to make insurers reluctant to contest claims. If the mortgagee or city stands to receive most of the claim, the insurance company has little financial incentive to contest the remainder even if fraud

¹Telephone conversation with William Curtis of the Federal Insurance Administration.

²U.S. Fire Administration, Report of the Congress: Arson, the Federal Role in Arson Prevention and Control, Washington: U.S. Government Printing Office, August 1979, p. iii.

is suspected. Sophisticated arsonists are clearly aware of this fact. In Newark, a property owner who has had a number of arson fires is reputed to have all of his properties mortgaged to a straw corporation which he controls.¹ This not only ensures that the owner obtains all or most of the fire insurance proceeds, but also that he avoids the city's tax lien law on insurance proceeds, since mortgagees have first call on insurance payments. In 1979 that owner owed the City of Newark approximately \$350,000 in back taxes on his properties.²

An insurance company's willingness to cooperate with public officials depends in large part on the demonstrated ability of these officials in investigation and prosecution of arson cases. Insurer cooperation with public authorities in arson cases leaves them vulnerable to suit by policyholders and, if the authorities lose the criminal case, this weakens the insurer's chances of winning a civil proceeding.

Forty-four states have passed insurer immunity laws designed to reduce companies' fears of legal action by policyholders if they cooperate with public authorities. Most of these laws have been enacted quite recently, so it has not yet been possible to determine their influence on relations between insurers and law enforcement officials. Two insurance representatives on the San Francisco ACAP task force were critical of California's 1978 immunity law. They believe that it had been ineffective because insurers feel that its ambiguous language still leaves them vulnerable to suits if they cooperate with public officials. These representatives were of the opinion that insurers are awaiting a test case before they share information with authorities in the absence of a subpoena.

Indeed, insurers in many states still prefer to have public authorities subpoena information on policyholders. Since insurers are obliged by law to comply with subpoenas, they are protected from legal action. At the same time some insurance officials in ACAP jurisdictions asserted that prosecutors rarely employ subpoenas to obtain insurance information. In sum, despite the apparent incentives for insurers to share information with public investigators and contest suspicious claims, countervailing factors often undermine aggressive claims investigation and public-private cooperation.

Possible Solutions in the Area of Claims Investigation

While, for the reasons discussed above, insurance companies do not always cooperate fully with public arson investigators and prosecutors, they can be an extremely valuable resource to public officials in the fight against arson. Unlike most crimes, arson committed against insured property may result in an investigation by private interests and, if evidence of fraud is found, a civil action may be instituted. The findings of such investigations are often of great benefit to criminal investigations and prosecutions

¹Tim O'Brien, "Newark Group Seeks Stepped-Up Drive Against Arson-for-Profit," The Star Ledger, March 9, 1979.

²Tim O'Brien, "Slum Czars Tangled World", The Star Ledger, March 4, 1979.

for arson. This is particularly true in areas with limited public arson investigation capabilities.

In conducting investigations and prosecutions of civil arson cases, insurers enjoy clear advantages not available to public officials handling criminal proceedings. The relationship between the insurer and the policyholder constitutes a private contract, and the rules of civil procedure govern the resolution of disputes among parties. This gives the insurer the following advantages:

- Burden of proof is easier to obtain: insurers in civil cases need to prove only by a "preponderance of evidence" rather than "beyond a reasonable doubt."
- Alternative defenses are available; e.g., an insurer can deny a claim based on a misrepresentation due to submission of an inflated claim.
- Private investigators retained by insurers have more latitude in questioning policyholders, for constitutional rights against self-incrimination do not apply to private contracts.
- Rules of evidence in civil proceedings allow the introduction of evidence that would be inadmissible during a criminal trial; e.g., evidence illegally seized by a public authority.

Insurance companies may also have substantially more resources at their disposal than do public officials. These resources can be used for hiring private arson investigators, paying for private arson laboratory analysis of evidence, hiring guards to protect fire scenes, and returning policyholders or witnesses to the state. In the case of very large claims, insurance companies have a particularly strong incentive to commit such resources to arson detection.

Information obtained during the investigation and preparation of civil cases can be shared with public authorities and benefit criminal arson investigations. Even with the protection of immunity statutes, however, insurers must be careful to keep at an "arm's length" from public investigators; otherwise, as noted earlier, insurers can be sued by policyholders for conspiring with law enforcement agencies.

Despite insurance industry protests that contesting fraudulent arson claims is fraught with financial and legal obstacles, successful efforts by insurers in this area prove that more can be done. For example, cooperation

¹Marvin I. Karp, "The Wishbone Offense-A Two-Pronged Attack Against Arson," The Forum (Fall 1978), p. 205.

in several successful investigations between the Massachusetts FAIR Plan and the Massachusetts Attorney General's Office resulted in a substantial reduction in estimated arson-related settlement payments.

Because the FAIR Plans insure a high concentration of inner-city properties, they also experience very high arson loss ratios. The Plans, as residual high-risk pools, are also not constrained by the competitive market forces that tend to discourage arson investigation and prosecution by insurers in the voluntary market. Indeed, the more effectively the Plans contest fraudulent claims, the more they can save their member companies. Currently the Plans absorb millions of dollars in losses each quarter. Contesting fraudulent claims in the FAIR Plans would seem to be especially cost effective. The general lack of aggressive arson investigation and prosecution by the Plans is therefore difficult to understand.

Unfair Claims Settlement Practices provisions tend to restrict the latitude allowed insurers in contesting claims. However, the U.S. Fire Administration suggests the following solution:

To remove this major disincentive, insurers would prefer to have a confidentiality clause in the claims section of the Unfair Trade Practices Act which would allow the company to give to the State's insurance department--in confidence--the reason for withholding payment of the claim and to be able to state to the policyholder only that 'the investigation has not been completed at this point.' In this way, insurers could feel more secure in challenging the claim without risking suit, and the state insurance department would still be in a position to protect the consumer interest of policyholders.

The degree to which insurance companies cooperate with public law enforcement authorities in arson cases and contest fraudulent claims will probably continue to depend on the capability and willingness of investigators and prosecutors to pursue arson, and of the particular policy of each company. As noted earlier, the financial interests of a company may counsel against contesting fraudulent claims. However, insurers themselves admit that recent public and Congressional outrage over arson has helped to educate the industry on the need for more action in this area.

Insurance companies can improve their anti-arson efforts in general and their claims investigation procedures in particular by providing better training to claims adjusters. Much attention has been focused on the inadequacies of fire investigators' training in fire scene examination.

¹U.S. Fire Administration, Report to Congress: Arson, p. 106.

²Ibid., p. 111.

However, many insurance adjusters believe that their training does not equip them effectively to identify incendiary fires. Insurance adjusters on some of the ACAP arson task forces complained of the highly uneven, haphazard, and often inadequate training in arson detection available to company claims personnel and adjusters. In some states there are no formal programs for training insurance adjusters in detecting arson. Training in some companies consists of a two-hour seminar on the subject. Regional claims associations are often heavily oriented toward casualty clients and therefore tend to neglect the needs of adjusters in the property area when developing training seminars.

Two ACAP projects provide excellent examples of how the training needs of insurance adjusters can be integrated into public training programs for firefighters and police. The Norfolk project worked with the Hampton Roads Claims Association to develop a training program in cause determination and arson investigation that would meet the needs not only of fire service personnel but also of insurance adjusters. Regional property adjusters were enthusiastic about the course. In Lynchburg, seven adjusters and investigators from the Nationwide Insurance Company enrolled in the ACAP project's arson investigation training program.

4.3 Programs for Juveniles

According to a recent survey funded by the Law Enforcement Assistance Administration, 42.8 percent of all arson arrestees are juveniles between 13 and 19 years of age. As noted in Chapter Two, staff in the ACAP jurisdictions generally shared this perception, although some believe that in their jurisdictions the figure is even higher.

A major problem in dealing with juvenile arson is that it is extremely heterogeneous. It crosses geographic and socio-economic boundaries and its causes are diverse. For purposes of discussion, juvenile firesetting can be divided into four types. One involves young children playing with matches and other flammable materials purely out of curiosity. This is perceived largely as a fire problem rather than a law enforcement problem since the element of malicious intent is usually absent. A second type of firesetting reflects psychological disorder. The third type, typically involving teenagers, is associated with vandalism. Trash dumpsters, schools, and vacant buildings are frequent targets of this type of juvenile firesetter, who is ordinarily handled by the juvenile justice system. A fourth type of juvenile firesetter goes one step beyond vandalism by receiving money for setting fraud fires--particularly against vehicles. Juveniles who set fires for pay would probably also be adjudicated as juveniles.

¹Anthony Rider, "The Firesetter: A Psychological Profile," in FBI Law Enforcement Bulletin, June 1980, p.8.

The juvenile firesetter problem has other characteristics that set it apart from the larger arson problem, not the least of which is the response of the criminal justice system. The juvenile justice system involves a degree of flexibility in the adjudication process that is not available in the adult criminal justice system.

For a problem that is widely regarded as serious in many jurisdictions, very few fire departments have initiated programs that seriously address juvenile firesetting. Until recently, there were no model programs on juvenile firesetters for localities to adopt. Action on this problem seems to have suffered from an unnecessary fatalism which still inhibits initiatives in this area in many localities. Furthermore, in several ACAP jurisdictions, a readiness to blame juveniles for the arson problem seems to be preventing effective action to stem arson in general. A common reaction in these jurisdictions is: "Juveniles are the problem, but there's nothing we can do about juveniles, so there's little we can do about stopping arson."

Our observation of ACAP jurisdictions and review of current literature suggest several elements which might be critical to the success of programs for juvenile firesetters.

- early identification and classification of firesetting behavior--this requires training of teachers in these areas;
- screening, referral, and treatment--of course, this requires that appropriate counseling and other referral programs are available;
- improved educational programs; and
- removal of opportunities for firesetting.

4.3.1 Early Identification of Firesetting Behavior

Early identification and classification of juvenile firesetters is extremely important if this problem is to be effectively addressed. A review of fatal juvenile firesetting incidents in Massachusetts found that, in almost all instances, unreported firesetting incidents had occurred in the youths' earlier years. Either the youth's parents or teachers did not consider these incidents serious, or they "protected" the child from authorities. There is an urgent need to train teachers to identify firesetters and refer them to appropriate treatment or counseling services. Firesetting behavior correlates highly with other learning and behavioral problems in school and should be identified as a symptom to be treated with those other problems.

The San Francisco ACAP project is developing other avenues of identifying young firesetters. In addition to the city's juvenile probation department, the fire department will become an identification source through its incident reporting system. Instead of simply reporting that a fire was caused by a child playing with matches, battalion chiefs will be asked to obtain the name, address, and age of the child so that follow-up contact can be made with the parents.

4.3.2 Screening, Referral, and Treatment

Few states or localities have any systematic policy to meet the needs of the youthful firesetter. Counseling and treatment resources are often not oriented to this problem. There tends to be little or no coordination or exchange of information between and among state and local juvenile justice and social service agencies regarding diagnosis, intervention, or treatment. Systematic data collection systems to gauge the extent of the firesetter problem are rare. Firesetting histories of delinquent youths are often downplayed by social workers because of the difficulty in placing such youths in private group homes or with foster families.

Perhaps the best approach to screening, referral, and counseling of juvenile firesetters has been developed by the Los Angeles County Fire Department and the California State Psychological Association. This is the model program followed by most other jurisdictions that have a juvenile firesetters' program. The program has been presented in a manual sponsored by the U.S. Fire Administration. USFA has sponsored a series of regional workshops for local fire departments and state fire marshals throughout the country on counseling juvenile firesetters; these workshops utilize the manual as a guide and a resource. USFA has for several years been the principal national resource and information exchange center on juvenile firesetter programs and has also funded innovative and promising programs at the local level.

The Los Angeles/USFA manual is geared toward firefighters and aimed principally at problem identification, interviewing techniques, screening, and referral. Guidance on counseling is suggested only for those younger firesetters and those in the "playing with matches" category who can be expected to respond to rational argument. Youths whose firesetting seems to be a symptom of emotional turmoil are recommended for referral to professional counseling and treatment.

Connecticut ACAP grant funds paid for two one-day sessions aimed at training 200 local fire and police personnel on the counseling methods developed by the Los Angeles County Fire Department. These sessions were taught by personnel from Los Angeles.

¹See Interviewing and Counseling Juvenile Firesetters, prepared by the Los Angeles County Fire Department under a grant from the U.S. Fire Administration and available from the Government Printing Office (November 1978).

The Bolingbrook, Illinois fire department has extensive experience in screening and counseling firesetters. The town's juvenile program appears to be effective in addressing the juvenile firesetting problem. Bolingbrook's Juvenile Firesetter Intervention Program originally targeted 4-7 year olds, but has been expanded to include youths up to 15 years old. Of the juveniles in this age range, none has been processed through the court system and, of the juveniles participating in the program, the rehabilitation rate is reported to be 100 percent. The program includes parent-child counseling. For follow-up counseling, youths are often referred to the village counseling center; three severe cases were referred to the University of Illinois treatment program for juvenile firesetters.

Some states have specific certification requirements that restrict counseling by fire personnel. In Bolingbrook, fire investigators have state certification from the Juvenile Officer's School, an Illinois requirement for all those counseling juveniles.

The San Francisco juvenile firesetters program (funded by the U.S. Fire Administration but integrated into ACAP's Community Support Committee) represents another approach to this problem. The project's design developed from research showing that firesetting behavior is often a means of unleashing repressed anger and is a symbolic and urgent cry for help. The study showed that firesetting youths are overwhelmingly male and that they are either fatherless or lack a strong, stable father figure. Therefore, the project has supplemented counseling services with a program pairing each youth with a firefighter volunteer who acts as a "big brother." These volunteers are intended to be male identification figures for the youths. The volunteers must undergo a Minnesota Multi-Phasic Personality Test and participate in a 3-session training workshop taught by a family therapist and a representative from the Boy's Club. These sessions acquaint volunteers with what to expect from deprived youths and with techniques such as "attentive listening" and other approaches used in Parent Effectiveness Training. The USFA manual is also used during the sessions. The publicity campaign used to advertise the program has helped to overcome the natural apprehension of parents to come forward with their children. Jurisdictions planning such a "big brother" program should ensure that parents' apprehensions are allayed in program publicity or by some other means.

The close relationships that have developed between youngsters and firefighters as a result of the San Francisco project have exceeded expectations and, according to ACAP staff observers, have led to visible changes in the ways that these youths relate to the world around them. The project has a well-designed evaluation component that tests youths before, during, and after their participation in the program. The evaluation should provide more conclusive evidence on the changes brought about by the program's counseling and guidance service.

Finally, in the city of Baltimore a Statement of Agreement has been developed calling for four city agencies, two state agencies (including the Juvenile Services Administration), and the insurance industry to refer juveniles exhibiting firesetting tendencies to a fire department liaison

officer for referral to counseling. The juvenile and his family are in turn referred to one of several social service agencies that are also parties to this agreement.

4.3.3 Improved Educational Programs

Because the fire service has a long association with teaching fire safety in the schools, it is not surprising that this should be the most popular approach to addressing the juvenile firesetting problem among ACAP jurisdictions. Most of the effort in this area seems to concentrate on modifying existing fire safety curricula and presentations to include a section on the social costs of arson.

Baltimore coordinates its counseling program with educational programs including "Learn Not to Burn," the city education department's Anti-Vandalism Curriculum, in-service training of school security personnel, and a specially targeted arson awareness program for students in schools which had experienced two or more incendiary fires.

Hartford undertook perhaps the most ambitious effort in the area of educational programs by modifying the "Learn Not to Burn" curriculum prepared by the National Fire Protection Association to include a new section on arson. This work is being coordinated by the Hartford Fire Department, Hartford School Department, and the Hartford Institute of Criminal and Social Justice.

It should be noted that education programs alone are not adequate to deal with the problem of juvenile firesetting. While such programs are useful in providing basic information on the dangers of fire, they must be supplemented with more individualized evaluation and treatment for children with firesetting problems.

4.3.4 Removing Opportunities for Firesetting

Not surprisingly, juvenile firesetting tends to be a particularly serious problem in neighborhoods with a substantial number of abandoned structures. Juveniles and adolescents may indeed be torching vacant structures in a neighborhood, but as noted earlier, their actions may obscure the root causes of arson in declining neighborhoods. Unfortunately, there is often little enthusiasm among investigators and other officials for analyzing why these structures have been abandoned. As far as some investigators are concerned, their job is to catch the torch. In point of fact, however, reducing the threat and impact of juvenile firesetting in such environments requires that abandonment be prevented and buildings be reoccupied or secured. (The relationships among disinvestment, abandonment, arson, and a range of neighborhood revitalization strategies are discussed in section 4.1 above.) In short, juvenile firesetting is not simply a "personal" problem of particular

youths but a symptomatic reaction to environmental influences in the family or the larger community. Therefore, the most effective approach to reducing juvenile firesetting in some neighborhoods may be to remove the opportunity for firesetting represented by abandoned buildings.

4.4 Public Awareness

Public awareness programs can contribute to the fight against arson in many ways. For example, they can:

- increase citizen support for funding anti-arson efforts;
- bring pressure for statutory and administrative changes designed to enhance anti-arson programs;
- deter potential arsonists (particularly if the public awareness campaign includes a description of steps taken by authorities to combat arson);
- foster community activities such as securing vacant buildings, arson patrols, and general neighborhood revitalization efforts;
- provide publicity to and increased opportunity and incentives for citizens' direct participation in the fight against arson by means of hotlines and other less formal assistance to public officials; and
- generate increased media coverage which in turn may further raise public awareness.

In this section we focus on two related strategies that have been used not only to raise public awareness but also to assist in the identification and prosecution of arsonists: hotlines and reward programs. While there may be other ways to increase public awareness (including general publicity campaigns and education programs), these were the predominant techniques used in the ACAP jurisdictions.

4.4.1 Arson Hotlines

Telephone hotlines provide a rapid and easy way for citizens to furnish arson information to law enforcement authorities. The rationale is to remove all barriers to providing information so that no matter how weak the motive to furnish information, it can be acted upon with minimal effort.

Arson hotlines are operating in almost all of the ACAP jurisdictions and in many non-ACAP jurisdictions as well. These hotlines vary widely in operating schedule, with some answered around-the-clock and others only during regular working hours. They also differ in answering method, i.e., live respondent versus answering machine. A number of programs have used post office boxes and informant identification numbers to preserve the anonymity of callers. Hotlines serve geographic areas of varying sizes: single city, county, region, or state. In at least one ACAP site, citizens are encouraged to use the hotline not only to provide information on arson but also to obtain answers to questions about arson.

The evidence on hotline effectiveness is mixed. The hotlines in most of the ACAP sites had only been in operation for relatively brief periods at the time of our site visits, so only limited impressionistic data were available on their effectiveness. The data available, however, suggested that very few useful tips had been received on ACAP hotlines. For example, Arson Bureau officials in Houston reported receiving as much useful information on their regular unpublicized telephone number as on the arson hotline, but little useful information on either line. Officials in Lynchburg said that they received "three times as many" useful tips on the regular telephone number as from the local arson hotline. If a hotline serves more than one investigative unit, some mechanism must be established for relaying tips to the appropriate jurisdiction in a timely manner.

Some jurisdictions have reported success with hotlines. Officials in Stamford, a demonstration site of the Connecticut state ACAP project, reported receiving a number of useful tips on their hotline after only several months of operation. Perhaps the most successful arson hotline has been Seattle's. In its first six months of operation, 31 calls were received on the hotline. While in absolute terms this is not a large number, it represents calls on 12 percent of the city's detected arsons during that period--fires that caused about \$100,000 in losses.

The "We Tip" program in Riverside, California has achieved "tremendous public acceptance and success," according to a federal government study. A key feature of this program is its use of professional, trained operators who assure callers that their anonymity will be preserved. Callers are assigned a code number, and all communication is carried out through a post office box.

¹LEAA, Arson Prevention and Control: Program Model (January 1980), p. 89.

²FEMA/LEAA, Arson Task Force Assistance Program (April 1980), "Arson Hotline," p. 3.

Hotlines have been strongly endorsed as integral parts of arson awareness programs. Preliminary evidence suggests that arson hotlines may not be as effective as some have argued. There are a number of possible explanations for this. One of them involves the reward funds commonly used to induce persons to provide information.

4.4.2 Reward Funds

Reward funds are intended to increase the motivation to provide information that may be helpful in identifying, arresting, and convicting arsonists. An important issue in the development of reward programs is the amount of discretion involved in making the award. A payment of a specified amount may be guaranteed for information leading to the arrest (or conviction) of an arsonist. However, in most jurisdictions individuals are nominated for rewards after the fact, and a governing board decides on specific awards. The preference for discretionary reward programs is largely motivated by the limitation on funds available for rewards.

There are a variety of possible funding procedures for reward programs. Discretionary programs can operate with a fixed pool of reward money which the board divides among deserving informants, or the board can first identify deserving informants and then attempt to raise funds to reward those individuals. A general reward program with a fixed budget may be able to raise supplemental funds for information on a specific fire. Some programs use their funds for continuing payment of informants who seem likely to provide information in the future, while other programs restrict their awards to providers of specific tips.

A number of jurisdictions have found private funding sources for hotline and reward programs. Insurance companies, associations of insurance agents, other business groups, foundations, and community groups are among the most promising sources of funding.

Many jurisdictions have implemented reward programs. In addition, some local ACAP jurisdictions are covered by state reward programs. Almost all of the ACAP reward programs are discretionary--that is, they make awards long after the information is provided, based on the perceived usefulness of a specific piece of information. In addition to awarding money in this way, North Las Vegas and Stamford, Connecticut use the money for continuing support of informants and to purchase specific information from informants.

Available information suggests that few of the ACAP reward programs produced many useful tips during their early implementation. Only one of the projects contacted seemed willing to assert that its reward program had proved valuable in the investigation of arson. Seven projects claimed that it was too early to tell whether the program was working and three others believed that it was not useful. The exception was the Baltimore City Project which reported several awards for useful tips.

¹Ibid.

A possible problem with many of the ACAP reward programs is that they simply do not offer very much money. Most statewide reward programs are funded at \$5,000-10,000 per year; none of them has more than \$10,000. Michigan's program, in operation five years, paid out approximately \$7,800 in 26 rewards in 1978 for an average award of \$300. Notable exceptions to these low levels of funding are local programs in Kansas City and New Haven which offered rewards of \$2,500 and \$20,000 for tips on specific fires. It is interesting to note that even the \$20,000 reward offered in New Haven failed to yield any useful information according to those we interviewed. On the other hand, the Albuquerque Crime Stoppers reward program appears to be a very successful general criminal reward program. It has distributed at least \$75,000 over a four-year period. This is a substantial amount of money for a city of 250,000. The Georgia Arson Control Hotline program, funded by 49 insurers and operated by the State Fire Marshal's Office, offers rewards of up to \$2,500 for information leading to arrest and conviction of arsonists. To date five rewards averaging \$1,000 each have been paid, and the counties in which the rewards were paid have reported substantial reductions in arson.

The size of the reward may be particularly important in eliciting information from the group which is most likely to have it--namely, the criminal element. For this group, large sums of money may be necessary to counterbalance the disincentives of "going to the authorities" with information. Furthermore, this target group may be very cynical about the likelihood that the authorities will actually deliver the reward money being offered. Highly visible rewards may help convince potential informants that the offer of a reward is real. Guaranteed rewards with minimal delays in payment in return for information of a certain quality--e.g., which leads to an arrest--might serve this purpose. The success of reward programs may be largely a function of how they are advertised. For example, discretionary programs may be able to spread the perception that rewards really are delivered by enumerating specific past rewards.

4.4.3 Advertising of Hotlines and Reward Funds

In general, the advertising of hotlines and reward funds plays a major role in the effectiveness of these programs. Obviously, hotlines and reward funds cannot have any effect unless the public is aware of their existence. ACAP projects have used a variety of media in their advertising campaigns, including newspapers, radio, television, billboards, and signs on burned buildings. One project had its message printed on supermarket shopping bags. Another was able to mail its publicity brochure to all residents with their electricity bills. Radio and television coverage was provided by public service announcements as well as by news stories and talk shows. Other jurisdictions have used television spots directed at juveniles by local professional athletes, "witness anonymous" newspaper columns soliciting information on particular fires, and speeches by government and business leaders. Several successful programs have also chosen "catchy" names and concentrated their efforts on spreading a simple message: for example, in

Seattle, the publicity emphasized the point that if you commit arson, you are likely to be caught and sent to prison.

Given the high cost of large-scale advertising and publicity, it appears that programs should exploit sources of free advertising and publicity as much as possible. The advertising budgets of many of the ACAP projects were probably too small for the message to reach enough people able and willing to provide information. For instance, Norfolk did a better job than most projects on their media campaign, spending \$10,000 in direct costs and approximately 21 days of the project director's time on advertising activities. Advertising on milk cartons and grocery bags provided fairly good exposure for a month. Billboard space (which cost 70 percent of the total media budget) provided some coverage for six months. However, the talk shows and public-service announcements which were part of the campaign apparently ran very late at night and the bus cards which were developed were posted on only a fraction of the city's buses. The project director now feels that, given another chance, he would hire a media consultant to design the campaign.

It appears that at least some of the advertising campaigns emphasized values and interests probably not held by the group that may have most of the information needed. The people most likely to have useful information, at least with regard to arson for profit, are often criminally involved or close associates of people criminally involved. However, many of the advertising campaigns stressed the following values:

- sympathy for victims of arson
- anger at lawbreakers
- concern for the well-being of the community as a whole
- the sanctity of private property from damage by others
- the advantages of reduced insurance rates through reduction in arson.

This emphasis is probably appropriate if the advertising campaign is directed at obtaining information from conscientious, upstanding citizens. However, as noted above, this may not be the group that has the most valuable information. Furthermore, spokesmen in several sites observed that the conscientious and upstanding citizen would typically provide such information without the inducement of a reward.

In general, the advertising campaigns suggest that the purposes and orientation of the hotline and reward programs have not been carefully defined. This, in turn, suggests a need for careful planning and resource allocation. A recent federal government study recommends that jurisdictions

establish a management committee to oversee hotline and reward programs.¹ This committee could set realistic programmatic goals so as to avoid inflated expectations and public disappointment. It could also pursue private funding sources. The group could include a person experienced in public relations to help design a publicity campaign appropriate to the audience and objectives agreed upon for the program.

It is difficult to distinguish precisely between successful and unsuccessful arson hotlines and reward programs on the basis of particular attributes. However, based on ACAP experience and current literature,² we believe that the following characteristics would maximize the chances of success at reasonable cost:

- oversight of the program by a management committee;
- 24-hour hotline operation;
- live respondents rather than answering machines;
- anonymity for callers;
- if volume of calls will not justify an arson-specific hotline, merger with existing multi-crime or multi-purpose hotlines;
- sufficient reward funds to provide necessary inducement to informants: an average award amount of \$1,000 might be a reasonable target;
- aggressive pursuit of private sources of reward funds and advertising and hotline operation budgets;
- sufficient assurance that rewards will be forthcoming for useful information;
- an advertising and publicity campaign designed with the target audience and program objectives in mind;
- multi-media advertising and publicity with aggressive use of all possible sources of free advertising and publicity; and
- sufficient funding for advertising and publicity to permit adequate coverage of target area; if enough funds and free publicity are not available, consider

¹ Ibid.

² For detailed guidance on how to plan and implement hotline and reward programs, see Ibid.

restricting campaign target area to allow more concentrated coverage.

Many of the ACAP hotline and reward programs incorporate most of these elements and still have shown only limited success. Thus, we believe that there is a need not only to improve existing programs in the ways listed above, but also to reevaluate the overall utility of hotline, reward, and advertising campaigns as arson control strategies. If they have the necessary information to do so, planners and decision makers should determine whether enough productive tips are received to justify the expense of these activities. If not, and the principal purpose of the public awareness program is to elicit tips, then it may be more effective for the jurisdiction to spend the money in alternative ways, such as the following:

- Informant money. Some believe that the \$20 the investigator can offer immediately is probably more effective in eliciting information than is the \$200 promised at some time in the distant future.
- Additional investigative staff. It may be as expensive to produce a substantial volume of tips through a hotline or reward fund in a moderate-sized jurisdiction as to hire an additional investigator. If the investigative supervisor is able to estimate the number of additional arrests or convictions he could achieve with an additional investigator, it would be possible to balance the number of increased arrests or convictions expected from hotlines and reward programs against the increase expected from an additional investigator.

If, on the other hand, the purpose of the public awareness campaign is to change attitudes and foster concern about arson, then consideration might be given to conducting a general campaign targeted to "good citizen" values and eliminating the hotline and reward programs.

4.5 Summary and Conclusions

Effective arson control requires development and implementation of comprehensive prevention programs which address the underlying causes of the problem. In this chapter we have discussed a range of strategies which may be included in a comprehensive arson prevention program and the elements which appear to contribute to the success of each strategy.

Neighborhood Self-Help and Revitalization: Urban Arson is closely associated in a chain of causation with owners' "milking" of and disinvestment from properties, housing abandonment and neighborhood decline. It may also be linked to "gentrification." Whether owners are actually responsible

for setting fires or simply allow their buildings to be torched by occupants or vandals, the results are the same and the owners may be able to benefit all the way through the process from a combination of high rental income, low maintenance expenditures, property tax delinquency, and income tax writeoffs, exploitation of certain federal housing programs, profit from condominium conversions, and, of course, insurance proceeds.

Neighborhood self-help and revitalization programs may help to break this process. These programs are most effective if there is close cooperation within government and among government officials, community organizations, and individual citizens. The role of community organizations is particularly important. Such groups represent a potentially very valuable resource to public arson investigators, but one which has, thus far, gone largely untapped. Neighborhood self-help and revitalization programs might include the following strategies:

- Improved legislation and regulation

- improved code enforcement, including monitoring of problem properties;
- liens on insurance proceeds for back taxes, utility bills, and demolition costs;
- "rent-taking" programs in which tenants in buildings with back taxes due pay their rents to the city;
- accelerated tax foreclosure on deteriorated absentee-owned properties;
- reduction of income tax incentives associated with arson losses;
- more energetic action against "eviction fires" associated with condominium conversion and gentrification;
- curtailment of abuse of HUD's Section 8 Substantial Rehabilitation program; and
- passage and enforcement of more stringent ownership disclosure laws to curtail the use of "straw" ownerships and dummy corporations.

- Joint Community-Government Initiatives

- intelligence and monitoring activities, including block watches, arson patrols, and surveillance of at-risk buildings;
- rent escrow schemes enabling tenants to finance building improvements directly through their rent payments if owners refuse to carry them out;

- reoccupancy and/or alternative ownership strategies for abandoned buildings, preferable to demolition since they preserve the property and afford opportunities for more stable and responsible ownership and occupancy; and

- board-up/seal-up/demolition programs for exposed or abandoned buildings.

Insurance Initiatives: Although there is considerable disagreement over these matters, it is often argued that insurers contribute to arson-for-profit incentives by tolerating and even encouraging careless underwriting and claims investigation. Such practices permit unscrupulous owners to obtain coverage and collect claims payments far in excess of the actual value of the property. Higher policy values yield more premiums and thus increase companies' profits and brokers' commissions. At the same time, fire claim losses may be passed on to consumers in higher premiums. Moreover, companies are often able to minimize their risk through reinsurance.

Possible solutions to underwriting problems include:

- more comprehensive applications for insurance coverage;
- more frequent inspections of properties both prior to initial coverage and upon application for policy renewal;
- more careful consideration of actual property values in evaluating coverage levels;
- careful study of the relationship between reinsurance and lax underwriting policies; and
- efforts to curtail overinsurance by surplus lines carriers.

Possible solutions to claims investigation problems include:

- closer cooperation and more extensive information exchange between insurance companies and public investigators;
- more aggressive civil action by insurers to deny fraudulent claims; and
- better training for claims adjusters.

Programs for Juveniles: Juvenile firesetting in its various forms probably accounts for a substantial part of the arson problem. Strategies to address juvenile firesetting include:

- early identification of firesetting behavior;
- better screening, referral, and treatment of firesetters, including counseling and "big brother" programs;
- improved school education programs on arson; and
- removal of opportunities for firesetting, particularly by attacking the problem of building abandonment.

Public Awareness: Most arson public awareness campaigns have been linked to hotlines and reward programs. Although these strategies have been useful in some jurisdictions, they seem to have been of limited value in most ACAP jurisdictions in generating information useful to arson investigators. The following elements seem likely to enhance the success of reward and hotline programs at reasonable cost:

- oversight of the program by a management committee;
- 24-hour hotline operations with live respondents and caller anonymity;
- sufficient reward funds to induce response;
- advertising and publicity designed to reach and cover the identified target audience;
- aggressive pursuit of private sources of funding for publicity and rewards, as well as free advertising and publicity.

If jurisdictions continue to derive limited benefit from hotline and reward programs, then they should consider dropping these components. The funds could then be spent in alternative ways such as paying informants, hiring additional investigators, or conducting general public awareness campaigns directed toward raising public consciousness about arson and encouraging support for anti-arson efforts.

CHAPTER FIVE

INFORMATION SYSTEMS RELEVANT TO ARSON CONTROL PROGRAMS

Information systems can be an integral component in the fight against arson in a number of ways, including the following:

- facilitate greater understanding of the nature and extent of the arson problem;
- help to identify resource needs and manage the investigation unit;
- identify arson suspects;
- identify likely targets before an arson occurs; and
- help guide the selection of anti-arson strategies and evaluate the effectiveness of previously selected strategies.

Ultimately, information systems can be critical elements in the formulation of local and national arson control strategies. However, it is important to note that an arson information system is only as good as the data upon which it is based. As stated in Chapter Two, available data on the nature and extent of arson are often inaccurate. Implementation of a comprehensive arson information system will not in itself remedy the problem of inadequate data. Instead, an information system will be most effective when implemented in conjunction with strategies to improve detection and investigation capability (such as those discussed in Chapter Three).

This chapter is based on an analysis of the ACAP sites and other jurisdictions. In addition to describing existing systems, we have proposed hypothetical systems that build on and extend those systems.

5.1 Introduction

As used in this chapter, the term "information system" means any systematic procedure for recording and retrieving information about the characteristics of a number of items, where the same characteristics of each item are collected and recorded in a common format. The definition is intended to include manual as well as computerized information systems. For example, name files on index cards and files of case reports would be included as long as there are certain items of information present in each file, such as the address of the fire and the name of the owner.

Table 5.1

SUMMARY OF INFORMATION SYSTEMS DISCUSSED IN THIS CHAPTER

Section	System	Geographic Scope	Purposes Served	The Universe of Items for Which Individual Records are Maintained in the System ^a	Typical Information Maintained on Each Member of the Universe
5.2	Local Fire Incident Systems (UFIRS and Non-Standard Local Systems)	Local	<ol style="list-style-type: none"> 1. Assist in identifying resource needs of the fire department by documenting the magnitude of the local fire problem and documenting the activities of the fire department. 2. Guide scheduling, resource allocation, prevention activities and planning. 3. Evaluation of effectiveness of fire department activities. 4. For arson: Description of how arson fits into the picture of the local fire problem. 	All local fire incidents, whether a fire is involved or not. (A fire incident is the movement of apparatus or equipment in response to alarms.)	<ol style="list-style-type: none"> 1. Description of the situation encountered 2. Fire department response 3. Description of fire, if one occurred 4. Description of property involved 5. Description of casualties, if any
5.2	National Fire Incident Reporting System (NFIRS)	Local, State, National	<ol style="list-style-type: none"> 1. Assist in identifying resource needs of USFA, state fire agencies and participating local fire departments by documenting the magnitude of the fire problem. 2. Guide national resource allocation, prevention activities, planning and research. 3. For arson: Description of how arson fits into the picture of the national fire problem. 	Ideally: All fire incidents in the U.S. At present: All fire incidents in jurisdictions participating in NFIRS	Similar to items in local incident systems. Less emphasis on resources utilized in suppressing the fire
5.3	Local Investigative Information Systems	Local	<ol style="list-style-type: none"> 1. Assist in identifying resource needs of the local fire investigation unit by documenting the magnitude of the local arson problem and the activities of the local fire investigation unit. 2. Assist in detecting arson and identifying suspects. 3. Describe local arson problem in order to guide strategy and resource allocation. 4. Monitor and control resource expenditures. 5. Evaluate effectiveness of arson control strategies. 	All fires investigated by the unit, whether incendiary or not.	<ol style="list-style-type: none"> 1. Cause of fire 2. Descriptive information on fire 3. Evidence for use in court (e.g., photographs, results of lab tests) 4. Names of persons involved in fire as owner, mortgage holder, insurance adjuster, etc. 5. Potential motives of perpetrators 6. Resources expended in investigations 7. Information on criminal justice system actions such as arrest, prosecution, conviction, and sentencing.
5.4	Police Field Incident Systems	Local	<ol style="list-style-type: none"> 1. Serves purposes for the entire police department similar to the purposes an investigative information system serves for the investigation unit. 	Varies, may include all arrests, all field interviews of suspicious persons, all criminal offenses, all traffic offenses, all traffic accidents, etc.	<ol style="list-style-type: none"> 1. Physical description of persons involved. 2. Description of incident
5.5	Property Insurance Loss Register (PILR)	National	<ol style="list-style-type: none"> 1. Detect duplicate claims for the same fire loss to different insurance companies. 2. Identify suspicious claims through linkage to previous fires with same owner, occupant, mortgage holder, etc. 3. Simplify procedure for reporting fire loss claims to state fire marshals. 4. Help law enforcement officials to identify insurer when insurer wants to cooperate. 	All fire losses greater than \$500 for which insurance claims are filed with participating insurance companies.	<ol style="list-style-type: none"> 1. Names and addresses of occupant, adjuster, insured, and insured's partners, agents, corporate officers, contractors, etc. 2. Description of property and insurance coverage
5.6	Uniform Crime Reporting (UCR) of Arson As A Part I Offense	National	<ol style="list-style-type: none"> 1. Document magnitude of national and local arson problems. 	No information on individual arson cases is maintained. Participating jurisdictions file monthly aggregate reports on arson experience.	<ol style="list-style-type: none"> 1. Number of arsons against each of several categories of target 2. Total dollar loss due to arsons against each of several categories of target 3. Numbers of arrests for arson
5.7	Early Warning Systems	Local	<ol style="list-style-type: none"> 1. Identify potential targets of arson so that preventive actions can be taken. 	All buildings within some geographic subdivision of a local jurisdiction.	<ol style="list-style-type: none"> 1. Vacancy rates 2. Prior fire history in same building 3. Property tax delinquency history 4. Code violations

^aFigure 5.1 portrays graphically the relationships among these universes.

Each of the remaining sections of this chapter addresses a different type of information system. Table 5.1 provides an overview of each system, summarizing its geographic scope, the purposes served, the universe of items for which individual records are maintained, and information typically maintained on each member of the universe. The overlap between the universes covered in each system is depicted in Figure 5.1.

Section 5.2 discusses local fire incident systems and the National Fire Incident Reporting System. Local fire incident systems serve purposes of management and planning and place arson in the context of the local fire problem. They may or may not be based on standard reporting formats such as those of the Uniform Fire Incident Reporting System (UFIRS) or be part of a larger system. The National Fire Incident Reporting System (NFIRS) is a national fire system based on standard local incident reports which are collected at the state level and forwarded to the National Fire Data Center in Washington. Both local and national fire incident systems are designed to include descriptive data on every fire incident.²

Local investigative information systems, discussed in Section 5.3, may be used to identify resource needs of the local fire investigation unit, to identify suspects, to detect arsons, to manage the investigation unit, and to evaluate the effectiveness of arson control strategies. Such systems include reports on all fire investigations and contain information on the cause of the fire, names of persons involved, potential motives of suspects, available evidence, criminal justice system actions, and resources allocated to the investigation.

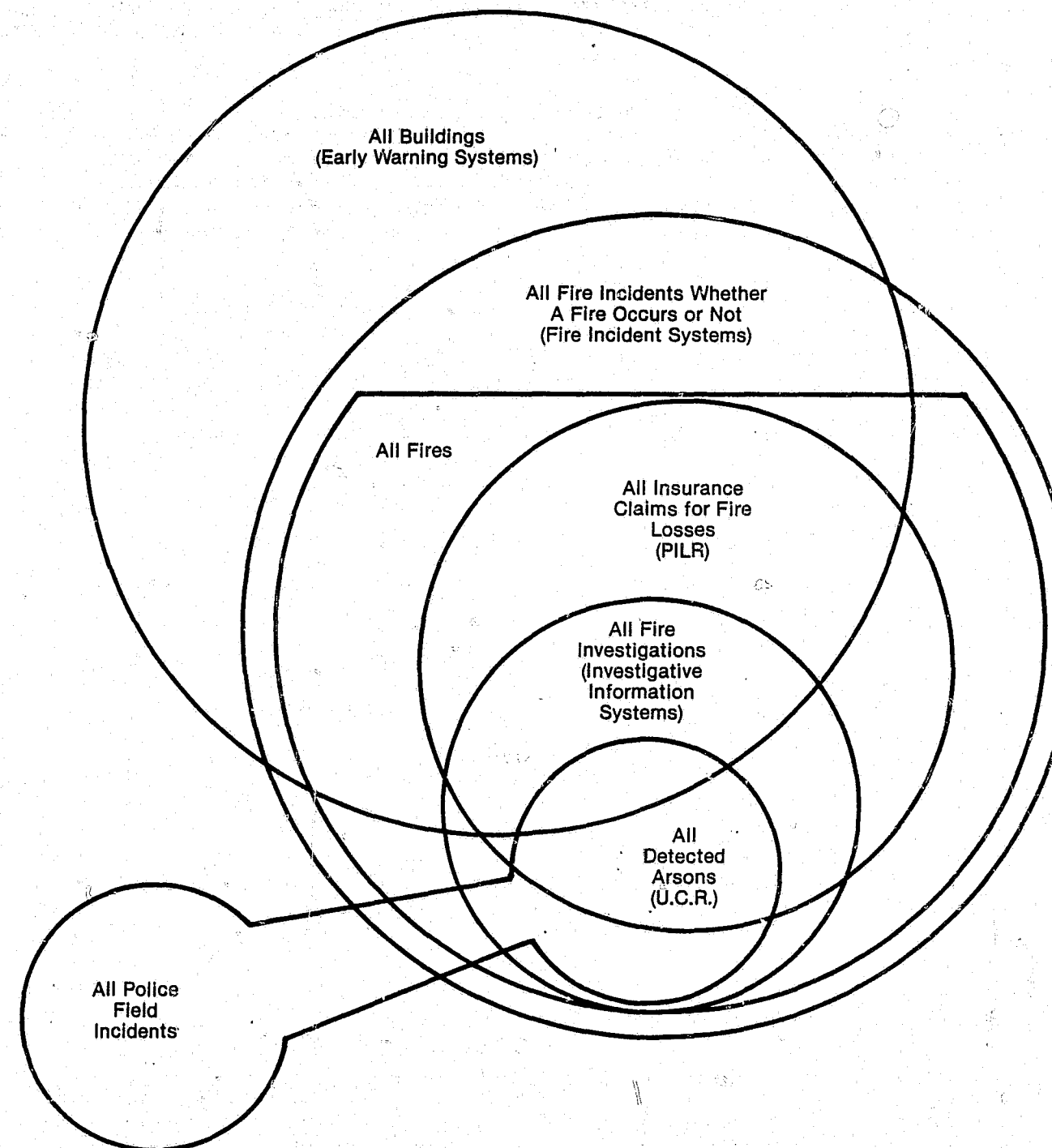
Section 5.4 describes police field incident systems. These are local systems that serve the entire police department in much the same way that an investigative information system serves the fire investigation unit. In addition to all arsons, files are likely to be maintained on all criminal and petty offenses as well as all traffic accidents. Files typically include information on both the incident and any persons involved.

The Property Insurance Loss Register (PILR), described in Section 5.5, is a national system primarily designed to detect duplicate claims submitted to different insurance companies. PILR can also identify suspicious fire loss claims through linkage to previous fires, aid insurance companies in reporting fire loss claims to state fire marshals, and aid law enforcement officials in identifying the insurer of a particular loss. Ideally, PILR should contain a report on all insurance claims for fire losses, describing the property insured, the insurance coverage, and the names of persons connected to the loss.

¹ The universes portrayed in Figure 5.1 represent the ideal theoretical universes for each information system.

² As defined by the National Fire Protection Association, an incident is the "movement of a piece of fire service apparatus or equipment in response to an alarm." NFPA Standard 901.

Figure 5.1
Relationships Among the Universes Covered by
Information Systems Relevant to Arson Control



*The universes depicted in this figure represent the ideal or theoretical universes for each information system.

Section 5.6 discusses the Uniform Crime Reports (UCR), to which arson has been added as a Part I crime. The purpose of this addition to the existing UCR information system is to document the magnitude of the national arson problem and the arson problems in local jurisdictions. This system is intended to describe all arsons using monthly records from each local jurisdiction.

Section 5.7 describes local early warning systems whose purpose is to identify potential targets of arson so that preventive action can be taken. These systems typically attempt to describe all buildings within some geographic area. A separate record is maintained for each at-risk building containing information about the building or its owner, such as prior fire history, property tax delinquency history, code violations, and vacancy rate.

There are several types of information systems mentioned in the literature on arson that do not appear in Table 5.1. First, the term "Arson Pattern Recognition" system has recently been used to refer to the analysis of patterns of fires and arsons for the purpose of identifying suspects and guiding arson control strategy. In the terminology used here, Arson Pattern Recognition is included under both fire incident systems (Section 5.2) and investigative information systems (Section 5.3).

In a similar fashion, the term "Intelligence System" or "Intelligence File" is sometimes used to refer to a collection of data in a common format on a group of similar objects, such as a name file. Such intelligence systems are considered here to be investigative information systems and they are discussed in Section 5.3.

A third commonly used term that does not appear in Table 5.1 is Arson Information Management System (AIMS). The U.S. Fire Administration has funded the development of a number of local information systems under the title of Arson Information Management Systems. Most of these systems would be classified here as early warning systems, though one of the AIMS systems appears to be an investigative information system.

A fourth commonly used term is "Suspect Identification System." Suspects are identified in somewhat different ways by three of the types of systems described here; local investigative information systems, the Property Insurance Loss Register, and police field incident systems.

¹ USFA construes Arson Information Management Systems far more broadly than information systems are construed here. AIMS seems to include not only procedures and structures for manipulating information, but also procedures for making use of the information yielded by the system, such as code enforcement; the organization of structures that support the system, such as citizen groups; and even broad social processes that the system tries to influence, such as neighborhood revitalization. Most of these procedures are discussed in other chapters of this report.

Each system type described in the remaining sections of this chapter has the potential to serve multiple purposes and users with minor adaptation of the core system. Table 5.2 displays the range of purposes for which information systems are currently being used. Clearly, other purposes may also be served by some of these systems. For example, NFIRS may have the potential to detect or predict arson by using the data collected on geographic location, type of building, ignition factor, and material ignited, to recognize patterns of fires.

Given the expense of information systems, the possibility of serving multiple uses is an important consideration. In the discussions which follow, a number of optional modifications on each core system are proposed.

5.2 Fire Incident Systems

The defining feature of a fire incident system is that it maintains a separate record for each incident. Activities of the fire department such as suppressing fires, providing emergency medical services, answering false alarms, and washing spilled chemicals off roadways are all recorded as incidents.

Fire incident systems play an important role in the fight against arson by providing a description of the overall fire problem and making it possible to see what part arson plays. This information may prove useful in making such broad policy choices as whether to focus investigative efforts on large loss fires or whether to recommend neighborhood revitalization efforts. For example, if most of the dollar loss caused by fire and arson is concentrated in one area of the city, neighborhood revitalization might be an important arson prevention strategy. Fire incident systems also can provide information useful for determining how to allocate investigative resources, by identifying the time of day and geographic area in which investigators are most needed.

In the remainder of this section, the National Fire Protection Association (NFPA) standards on fire reporting are discussed. Subsequently, the report describes the two major fire incident systems which had their origins in these standards--The National Fire Incident Reporting System (NFIRS) and the Uniform Fire Incident Reporting System (UFIRS)--and touches briefly on non-standard local fire incident systems. This section concludes with a more complete discussion of how fire incident systems can serve the effort to control arson.

¹ An incident is defined as the "movement of a piece of fire service apparatus or equipment in response to an alarm." National Fire Protection Association, Standard 901.

TABLE 5.2

ARSON CONTROL PURPOSES SERVED BY INFORMATION SYSTEMS
DISCUSSED IN THIS CHAPTER*

Information System	Purpose Relevant to Arson Control						
	Detect Arson	Identify Suspects	Manage Investigation Unit	Predict Probable Occurrence of Arson	Identify Agency Resource Needs	Help Formulate Arson Control Strategy	Evaluate Effectiveness of Arson Control Strategies
Local Fire Incident Systems			X		X	X	X
National Fire Incident Reporting System (NFIRS)			X		X	X	X
Local Investigative Information System	X	X	X		X	X	X
Uniform Crime Reports (UCR) Reporting on Arson as a Part I Offense						X	X
Property Insurance Loss Register (PILR)	X	X					
Offense Based Police Systems		X					
Early Warning Systems				X			

*Although each system may have the potential to serve purposes other than those indicated, this table reflects only the known applications of these information systems.

5.2.1 NFPA Fire Reporting Standards

The National Fire Protection Association (NFPA) is a private, non-profit organization of public and private sector representatives engaged in education and development of standards on the prevention and control of fire. In promulgating standards, a committee of specially qualified NFPA members develops a proposed standard which is ratified by a meeting of the entire membership. Since 1896, the NFPA has promulgated hundreds of standards in the area of fire protection.

In the early 1960s the NFPA decided to address the need for standardization in the description of fire incidents in order to facilitate the collection of meaningful national statistics and comparisons from one jurisdiction to another on the factors causing fires and promoting fire spread. In 1969, the NFPA promulgated the 901 standard, Uniform Coding for Fire Protection. The 901 standard is a set of terms providing a common language for describing certain characteristics of fire incidents, including the property involved in a fire, ignition factors, growth and control factors, and losses and injuries suffered. The NFPA fire reporting committee assumes that many different data systems might develop out of the 901 standard. The standard merely provides a common set of terms to be used by the different data systems.

In 1973, NFPA promulgated the 902 standard, which provides a Fire Reporting Field Incident Manual. The 902 manual contains a form for describing a fire incident (the 902F form shown in Figure 5.2) using the terms defined earlier in the 901 standard. The 902 standard also includes a casualty report form (902G), an action summary form (902S) and instructions for completing these forms using the 901 terminology.

The 902 standard proposes one way to use the 901 terminology to collect information on fire incidents. It provides forms and instructions for completing the forms, but it does not specify what should be done with the forms once they are completed. Thus, the standard does not prescribe an information system, and it leaves open many major options in developing such a system.

NFPA continued the development of fire reporting standards with the issuance in 1977 of a Property Survey Standard (NFPA 903) to be used in prefire inspections, and with the issuance in 1981 of an Investigative Report Standard (NFPA 904). In the sections below, we will discuss how these standards, particularly the 901 standard, have provided the conceptual foundation for fire incident systems.

¹The 902 standard seems to be intended for use by medium-sized departments rather than by fire departments with the most sophisticated data processing capabilities.

FIGURE 5.2 THE NFPA 902F INCIDENT REPORT FORM

Fire Department										902F	
<div style="display: flex; justify-content: space-between;"> Fill In This Report In Your Own Words BASIC INCIDENT REPORT <input type="checkbox"/> Revised Report </div>											
A	FD ID		Incident No.		Exp. No.	Mo.	Day	Year	Day of the Week	Alarm Time	Time-- "In Service"
B	CORRECT ADDRESS:		No.	Dir.	Name			Type	Zip Code	Census Tract	
C	Occupant Name					Telephone			Room or Apt.		
D	Owner Name				Address				Telephone		
E	Method of Alarm from Public					Type of Situation Found					
F	Type of Action Taken				Co. Inspection District	Shift	No. Alarms	Mutual Aid <input type="checkbox"/> Rec'd <input type="checkbox"/> Given			
G	No. Fire Service Personnel Used at Scene		No. Engines Used at Scene		No. Aerial Apparatus Used at Scene		No. Other Vehicles Used at Scene				
H	No. Incident-related Injuries ^a				No. Incident-related Fatalities ^a				Complex		
I	Fixed Property Use				Mobile Property Type ^{aa}						
J	Area of Fire Origin		Level of Fire Origin		Termination Stage						
K	Equipment Involved in Ignition (if any) ^{aa}				Form of Heat of Ignition						
L	Type of Material Ignited		Form of Material Ignited		Ignition Factor						
M	Structure Type		Construction Type		Construction Method						
N	Extent of Flame Damage		Extent of Smoke Damage		Extent of Water Damage						
O	Extent of Fire Control Damage		Detector Performance		Sprinkler Performance						
P	IF FLAME SPREAD BEYOND ROOM OF ORIGIN:		Type of Material Generating Most Flame				Avenue of Flame Travel				
Q	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN:		Type of Material Generating Most Smoke				Avenue of Smoke Travel				
R	Method of Extinguishment										
S	Estimated Total Dollar Loss		Property Damage Classification			Time from Alarm to Agent Application					
^a List name, age, sex, and description of injury for each casualty on form 902G ^{aa} Complete Below			Officer in Charge (Name, Position, Assignment)							Date	
			Member Making Report (If Different from Above)							Date	
<input type="checkbox"/> Check box if remarks are made on reverse side.											
U	If Mobile Property	Year	Make	Model	Serial No.	License No. (if any)					
V	If Equipment Involved In Ignition	Year	Make	Model	Serial No.	Voltage (if any)					

COMPLETE ON ALL INCIDENTS

COMPLETE IF CASUALTY OR FIRE

ALL IGNITIONS

COMPLETE IF FIRE FOR STRUCTURE FIRE ONLY

ALL FIRES INCIDENTS COMPLETE ON ALL

This form is for use with NFPA 902M, *Field Incident Manual*. Users should also refer to NFPA 901, *Uniform Coding for Fire Protection*, for information on fire reporting systems and classifications for information entered on this form.

5.2.2 The Uniform Fire Incident Reporting System (UFIRS)

Between 1971 and 1974 the professional staff of NFPA developed a local fire incident system based on the 901 standard developed by the NFPA Fire Reporting Committee. This system was named the Uniform Fire Incident Reporting System (UFIRS), and while it is based on the fire reporting standards, it is not a product of the standard setting process.

The UFIRS forms collect all of the information on the 902F form and more. They include an alarm report, a field incident report, a company incident report, a fire investigation report, and a casualty report. The Field Incident Report Form is shown in Figure 5.3.

Much of the additional information on the UFIRS forms deals with manpower and equipment utilization. This information makes UFIRS particularly suitable for large city fire departments, where the need for such management information is greatest.

UFIRS is truly an information system in that it not only provides forms, but it also includes a system capable of storing, maintaining, and analyzing the information contained on the forms. The system includes 19 computer programs designed to be run on a large computer.

The UFIRS system is being used in 41 fire departments, primarily in the very large cities it was designed to serve. The UFIRS system is strictly a local system in that each UFIRS city maintains its own data, and these systems are not joined together in a common data base. It is relatively easy for cities with UFIRS systems to participate in the National Fire Incident Reporting System (described in Section 5.2.4), since the latter system has adopted the 901 standards and the 902 reporting forms. In this situation, local departments forward their data to the state which then transmits it to the National Fire Data Center.

5.2.3 Non-Standard Local Fire Incident Systems

The NFPA fire reporting standards had the intended effects when many local jurisdictions made use of NFPA standards 901 and 902 in developing their own, locally tailored fire incident systems. Some of these systems are computerized and others are manual. Many of these systems modified the 902F incident report form by adding elements of particular local interest. The data elements included and the procedures used in these non-standard local systems vary greatly.

Many of the local systems based on the 901 and 902 standards are called "UFIRS" systems, even though they are not derived from the NFPA Uniform Fire Incident Reporting System. This misnomer may occur because these local systems share so many data elements with the UFIRS system, since they are all based on the 901 standard.

FIGURE 5.3 THE UFIRS FIELD INCIDENT REPORT FORM

DATE	TIME

CHANGE 2 ☐ (74)

COMPLETE FOR ALL INCIDENTS																								
5 0		INCIDENT NO.					EXP		FIELD INCIDENT REPORT										FD-200					
1	2	3	4	5	6	7	8	9																
AUX. TRIP? <input type="checkbox"/>		TYPE SITUATION FOUND				TYPE OF ACTION TAKEN				PROPERTY NAME							APT. NO.							
10		11 12				13																		
CORRECT ADDRESS:								No.		Dir.		Name					Type		Zip Code			Census Tract		
								14									34 35		41 42			47		
DISTRICT		OUT OF JURISDICTION <input type="checkbox"/>		PROPERTY MANAGEMENT						COMPLEX														
48 49		50								51								52 53						
FIXED PROPERTY USE												MOBILE PROPERTY TYPE*												
										54 56												57 58		
PROPERTY REPRESENTATIVE															OCCUPANT									

COMPLETE IF FIRE											
5 1 1 2		LEVEL OF ORIGIN						AREA OF ORIGIN			
		EQUIPMENT INVOLVED IN IGNITION*						FORM OF MEAN OF IGNITION			
		TYPE OF MATERIAL IGNITED						FORM OF MATERIAL IGNITED			
		IGNITION FACTOR						CODE VIOLATION?		TERMINATION STAGE	
								1 <input type="checkbox"/> CHECK IF 25 YES			
		TYPE OF MATERIAL GENERATING MOST SIGNIFICANT FLAME						FORM OF MATERIAL GENERATING MOST SIGNIFICANT FLAME			
		MOST SIGNIFICANT FACTOR CONTRIBUTING TO FLAME TRAVEL						CODE VIOLATION?			
								1 <input type="checkbox"/> CHECK IF VIOLATION 33			
		TYPE OF MATERIAL GENERATING MOST SIGNIFICANT SMOKE						FORM OF MATERIAL GENERATING MOST SIGNIFICANT SMOKE			
		MOST SIGNIFICANT AVENUE OF SMOKE TRAVEL						CODE VIOLATION?			
								1 <input type="checkbox"/> CHECK IF VIOLATION 39			
TYPE OF WEATHER		TEMPERATURE		RELATIVE HUMIDITY		WIND DIRECTION		WIND SPEED			
40		41		42		43		44		45	

COMPLETE IF LOSS INVOLVED																	
5 2		STRUCTURE VALUE				CONTENTS VALUE				STRUCTURE LOSS				CONTENTS LOSS			
1 2																	
ESTIMATED OR ACTUAL																	
		10		17	18	25	26			33	34			41	42		
INSURED																	
		42		49	50	57	58			65	66			73	74		
INSURANCE COMPANY NAME																	

*COMPLETE BELOW					
IF MOBILE PROPERTY	YEAR	MAKE	MODEL	SERIAL NO.	LICENSE NO. (IF ANY)
IF EQUIPMENT INVOLVED IN IGNITION	YEAR	MAKE	MODEL	SERIAL NO.	VOLTAGE (IF ANY)

NOTE: POSITIONS 3-9 OF EACH CARD MUST CONTAIN THE INCIDENT AND EXPOSURE NUMBERS.

INCIDENT NO.	EXP.
3 7	8 9

COMPLETE IF STRUCTURE FIRE													FD-200		
5 3		STRUCTURE TYPE				YEAR CONST		HEIGHT		GROUND FLOOR AREA			BUILDING CODE OCCUPANCY CLASSIFICATION		
1 2		10 11		14 15		17 18		23			24 26				
CONSTRUCTION TYPE				CONSTRUCTION METHOD				NUMBER OF OCCUPANTS							
27				28				29							
EXTENT OF FLAME DAMAGE				EXTENT OF SMOKE DAMAGE				EXTENT OF WATER DAMAGE							
30				31				32							
EXTENT OF FIRE CONTROL DAMAGE				OBSTACLES TO RESCUE AND FIRE CONTROL (CHECK APPROPRIATE BOXES)											
33				<div> <div>1 <input type="checkbox"/> 36 Access to structure impeded</div> <div>1 <input type="checkbox"/> 37 Internal arrangement</div> <div>1 <input type="checkbox"/> 38 Windowless wall</div> <div>1 <input type="checkbox"/> 39 Difficult to ventilate</div> <div>1 <input type="checkbox"/> 40 Type of window impedes egress</div> <div>1 <input type="checkbox"/> 41 Exits not accessible or substandard</div> <div>1 <input type="checkbox"/> 42 Other obstacles (specify) _____</div> </div>											
PERSONS MADE HOMELESS															
34															
LOST TIME OF BUSINESS															
35															

COMPLETE IF THERE WERE FIRE PROTECTION FACILITIES									
WATER SUPPLY TYPE				FLOW		TANK CAPACITY			
				43		44 45 46 47 48 49			
SPRINKLER INSTALLATION AND COVERAGE				NO. OPEN		SPRINKLER EFFECTIVENESS			
				50 51 52 53					
STANDPIPE INSTALLATION AND COVERAGE						STANDPIPE EFFECTIVENESS			
				55					
PORTABLE EXTINGUISHER INSTALLATION AND COVERAGE						PORTABLE EXTINGUISHER EFFECTIVENESS			
				57					
SPECIAL HAZARD SYSTEM TYPE						SPECIAL HAZARD SYSTEM COVERAGE			
				59					
SPECIAL HAZARD SYSTEM EFFECTIVENESS				PRIVATE BRIGADE PRESENT 1 <input type="checkbox"/> 62		PRIVATE BRIGADE PERFORMANCE			
				61					
AUTOMATIC DETECTION INSTALLATION AND COVERAGE						AUTOMATIC DETECTION EFFECTIVENESS			
				64					
AUTOMATIC ALARM TRANSMISSION CAPABILITY						AUTOMATIC ALARM TRANSMISSION EFFECTIVENESS			
				66					
OTHER FIRE PROTECTION FACILITIES PRESENT 1 <input type="checkbox"/> 68 DESCRIBE:									

COMPLETE FOR ALL INCIDENTS	
REMARKS:	
OFFICER IN CHARGE:	DATE:
PREPARED BY:	DATE:
APPROVED BY:	DATE:

NOTE: POSITIONS 3-9 OF EACH CARD MUST CONTAIN THE INCIDENT AND EXPOSURE NUMBERS.

CONTINUED

2 OF 6

5.2.4 The National Fire Incident Reporting System (NFIRS)

In the late 1970s the National Fire Prevention and Control Administration (now the U.S. Fire Administration) established the National Fire Incident Reporting System (NFIRS) to fill the need for data on the nature and extent of the national fire problem. NFIRS is not only a national fire incident system; it is also a state system and a local system.

The incident report form and instructions of the NFPA 902 standard (see Figure 5.2) and the terminology of the NFPA 901 standard were adopted for NFIRS. The U.S. Fire Administration has developed a package of several dozen computer programs for storing, maintaining, and analyzing this information. These programs are intended for operation by a state agency, such as the state fire marshal's office, or a local agency.

In operation, local fire departments send either their 902F incident forms to the state fire marshal's office for keypunching, or send computer tapes. Computer tabulations of fire incidents from a local jurisdiction may periodically be returned to the appropriate local fire department by the state agency. The frequency and format of these reports vary among states. Once every three months the state agency forwards to the National Fire Data Center a computer tape containing a copy of the records of the incident forms received during that time.

Thus, NFIRS is a national fire incident system in the sense that it supports a national data base containing records of individual fire incidents. NFIRS is also a state level system, since each participating state maintains a statewide data base of individual fire incidents. Moreover, NFIRS is a local system as well to the extent that local departments conduct their own analysis.

Participation in NFIRS has increased rapidly in the last few years. Some of the earliest states to join the NFIRS system, were states that already had well-developed statewide fire incident systems such as Ohio and California. To help others implement the system, the National Fire Data Center has provided technical and financial support. The typical implementation process includes seminars of several days in length held at several locations around the state where local fire personnel are taught how to complete and submit the NFIRS forms. Instead of implementing the system in all fire departments simultaneously, often fire departments are brought into the system a few at a time.

Thirty-nine states currently participate in NFIRS,¹ including seven of the eight states receiving ACAP grants. However, the percentage of fire departments in these states which participate in the program varies widely depending upon how far implementation of the system has proceeded. In Connecticut, as of December 1980, 71 percent of the 289 fire departments in the state were submitting regular reports to the system. In Illinois, at about the same time, 61 percent of the state's 1300 fire departments were in

¹This figure changes quite frequently, as new states join the system.

various stages of adopting the system. In Florida 140 of 740 paid departments were reporting to NFIRS, but few of the approximately 500 volunteer departments were participating in the system.

One great value of the NFIRS system is that the data base will soon contain several years worth of commonly formatted incident records from a wide diversity of jurisdictions. This will permit highly sophisticated statistical studies of how fire rates vary with differences among jurisdictions on such factors as climate, demography, fire code provisions, and fire protection practices. The fact that separate records for each fire incident are available permits analysis of geographic areas as small as census tracts. Analysis of such small areas is desirable because it permits utilizing such rich sources as the U. S. Census of Population and Housing in searching for variables to explain differences in fire and arson rates. In short, NFIRS provides the means for the first comprehensive studies of the contributions of numerous factors to fire and arson rates.

5.2.5 Application to Arson

Fire incident systems can serve the effort to control arson in two principal ways: first, by providing a mechanism for collecting certain information on the characteristics of arson fires, and second, by making it possible to show how arson fits into the picture of the overall fire problem.

At present, the typical fire incident system is limited to information applicable to all or most fires. With the adoption by the NFPA of an Incident Follow Up Report Form (NFPA 904I) in 1981, there now exists a prototype vehicle for the systematic collection of additional items on the subset of fires that are investigated. Many of these items are of particular interest in incendiary fires. The 904 standard has not yet been formally incorporated into the NFIRS system, but this does not prevent local jurisdictions from adopting the 904 Standard for their own use or continuing to develop investigative information systems as discussed in the following section.

While most fire incident systems do not contain all of the information that would interest an arson investigator, much of the information they do contain is of interest. In addition, most fire incident systems provide a means of identifying arsons and suspicious fires. For example, the 902F form shown in Figure 5.2 does so by means of the Ignition Factor data element. Because fire incident systems permit arson fires to be separated from other fires, it is possible to use those systems to analyze the specific attributes of arson fires and to compare arson fires to other fires on those attributes.

Fire incident data are of limited use in analyzing the arson problem, and particularly in making cross-jurisdictional comparisons, because of the considerable variation in the quality of the information on fire cause provided in incident reports. Typically, the fire incident report is completed

by a member of the fire suppression unit shortly after the fire is extinguished. At that time, it is often difficult to determine the cause of the fire. While there are provisions for updating incident reports to reflect subsequent investigative findings, in practice this seems rarely to take place. (Adoption of the NFPA 904I Incident Follow Up Report Form in the future may help.) In addition, the expertise of both suppression and investigative personnel with respect to fire cause determination varies both individually and among departments. As training in cause determination becomes more widespread and reporting practices improve, the quality of the cause data in incident systems should also improve.

It seems clear that states or fire departments not now participating in NFIRS should make all reasonable efforts to do so. Chapter Seven of this report recommends the use of a statewide incident system such as NFIRS to help determine which local jurisdictions are in need of state investigative assistance. In addition, as outlined above, local jurisdictions can benefit from participation in NFIRS through the information it can provide them or through their own analyses of data on the 902F forms.

It also seems clear, however, that the most important reason for participating in NFIRS is the great contribution this will make to understanding the general fire problem, regardless of whether the fires are accidental or incendiary. Participation in NFIRS will not by any means resolve all local data needs related to arson. The bulk of arson information needs are met by an investigative information system. The next section is devoted to such systems.

5.3 Investigative Information Systems

An investigative information system is defined here as an information system that maintains separate records for each fire investigated by an investigation unit. The primary purpose of an investigative information system is to make the investigation of fires and the apprehension of suspects more effective and efficient. However, the investigative information system is also the most reliable source of information on the nature and extent of the arson problem. Only the investigator has access to the information needed to diagnose the local arson problem, and the only logical way to capture this information is through the local investigative information system.

This section of the chapter is directed primarily to investigators and especially to the investigative supervisor, since these are the key people in implementing an investigative information system. The intent here is to discuss ways in which systematic collection and storage of information can better serve their needs. A secondary goal of this section is to show how, with little additional effort, this systematic collection of information can be used to provide policymakers and task forces with the information they need to plan broad arson control strategies.

In order to show how these purposes can be accomplished, a detailed description of an investigative information system is included in Appendix C of this report. This system is a composite of the best elements we found in the investigative information systems in the ACAP sites and other jurisdictions. The composite system presented in Appendix C is used here as an outline in discussing the functions of investigative information systems.

A manual system is presented here because manual systems are easier to describe, easier to implement, and easier to modify than are computerized systems. A description of a manual system such as the one given here can, of course, be used to guide the design of a computerized system. Another reason for presenting a manual rather than a computerized system is that a manual system can be operated entirely by personnel reporting to the supervisor of the investigation unit, giving control of the system to the people who are served by it. The same principle of control by those served by the system would imply that each investigation unit should have its own investigative information system which it controls to meet its own needs, rather than participating in a statewide investigative information system. On the other hand, Chapter Seven presents some arguments that favor investigative information systems covering entire states.²

An investigative information system can serve a number of purposes. The purposes served by the composite investigative information system presented in Appendix C are presented below, keyed to that section of the appendix which discusses how that purpose is achieved.³

- Hold the records of the investigation (Section C.1):
The system can serve as the repository of the written records of each case.

¹ A good computerized system should be capable of achieving all of the goals achieved by the manual system presented here. This system is designed with an investigation unit consisting of 1 to 10 investigators in mind.

² As noted in Section 5.2.4, the importance of statewide fire incident systems is widely recognized.

³ The investigative information system presented in Appendix C does not attempt to identify suspects on the basis of their modus operandi. The Kansas City Arson Control Unit has been experimenting with such a system and may be able to provide information on their experience with it.

The system in Appendix C also does not attempt to identify suspects on the basis of their physical descriptions. We felt that police field incident systems (Section 5.4) would be far more useful for this purpose than systems based on arson suspects alone, because of the larger data base of potential suspects contained in such general police systems. We would encourage local investigation units to support and integrate their efforts with local police field incident systems.

- Monitor case processing (Section C.2):
The system permits the investigative supervisor to know what cases are being worked on, who is working on each case, and at what stage of processing each case stands.
- Produce monthly statistics (Section C.4):
The system can serve as a means for reporting to superiors on the activities of the unit, and as an indicator of gross changes in the arson problem.
- Identify suspects by virtue of their frequent association with fires investigated (Section C.5):
By maintaining a name file, it is sometimes possible to detect arson rings, clear previously unresolved cases, and implicate new suspects.
- Access and describe cases by geographic location (Section C.7):
The system makes it possible to study geographic patterns in arsons and to relate these patterns to other factors.
- Provide feedback on the rate of success in prosecuting offenders (Section C.9):
The system keeps track of the number and type of cases which result in arrest, prosecution, and conviction.
- Provide information on the nature and extent of arsons in the local jurisdiction (Section C.10):
The system provides information needed to guide overall arson control strategy, such as information on motives of arsonists.
- Monitor the expenditure of the resources of the investigation (Section C.11):
The system shows the amount and type of resources that are being consumed by different types of cases in order to determine if resource expenditures are in keeping with policy goals.

Other sections of the appendix describe secondary purposes of the system, such as indexing cases by address (Section C.6), indexing cases by date (Section C.3), and producing statistics for management of the investigation unit (Section C.8). These secondary purposes generally serve as a means for accomplishing the primary purposes listed above.

The composite investigative information system described in Appendix C uses the following files to accomplish the purposes listed above:

¹Of course, the same purposes can be accomplished with a different set of files.

- A Case File, which contains folders holding the written records of each investigation.
- A Logbook, which lists the cases in the order received, and contains limited information describing each case.
- A Name File, which indexes the cases by names of persons involved.
- An Address File, which indexes cases by address.
- A Geographic File, which indexes cases by location.

Figure 5.4 shows these files, the sequence of the records in each file, and the section of Appendix C where the file is first discussed and where the format of records in that file is presented. The arrows in the figure show the paths by which individual cases can be tracked from file to file.

5.4 Police Field Incident Systems

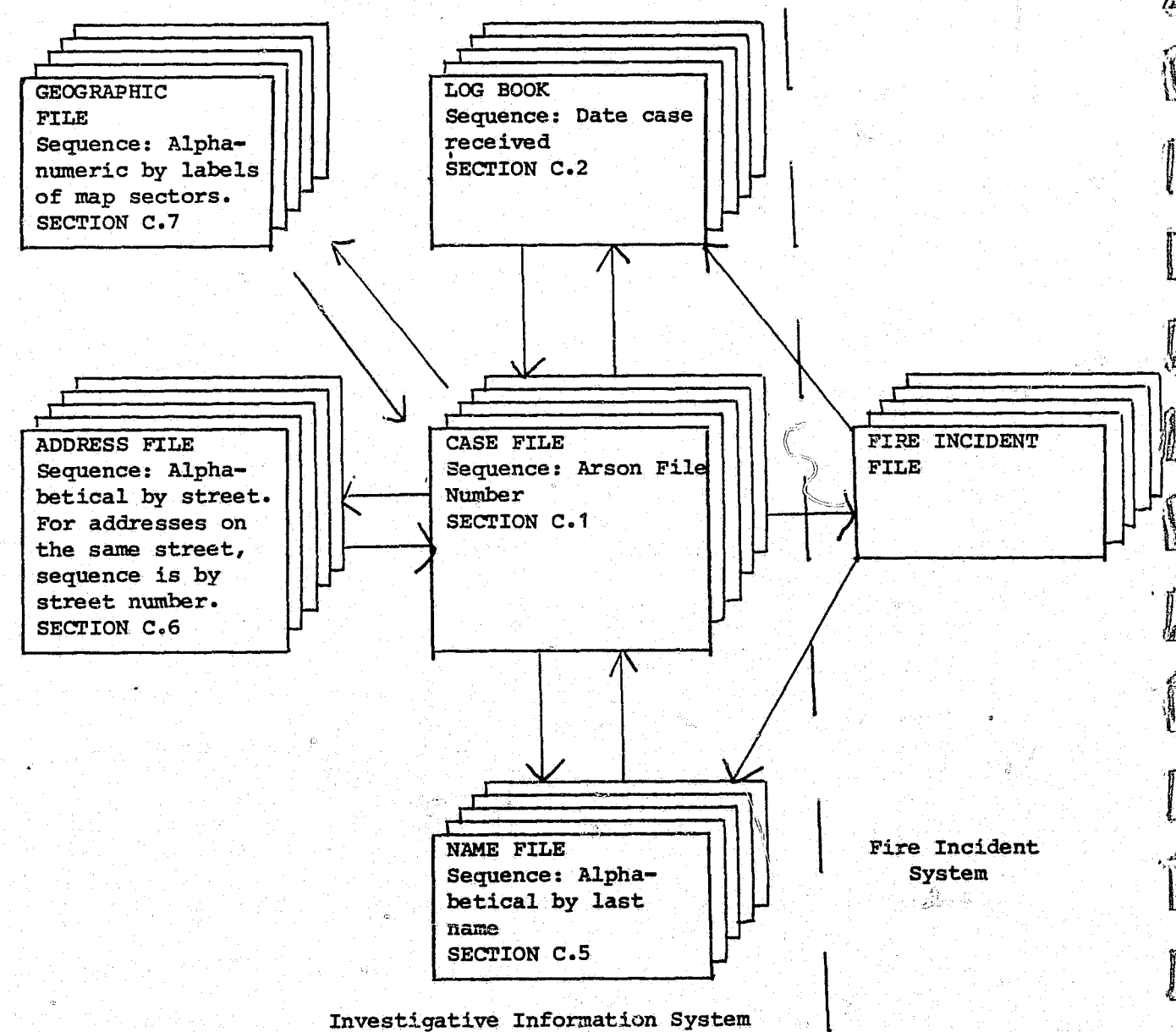
Police field incident systems serve much the same functions for the entire police department that the investigative information system discussed in Section 5.3 serves for the fire investigation unit. The defining characteristic of police field incident systems is that they include all police field incidents--not just fire-related incidents. Police field incident systems are often operated by crime analysis units affiliated with police departments. The Integrated Criminal Apprehension Program of the Law Enforcement Assistance Administration, which has fostered the development of crime analysis units in many police departments, has developed a model records system of this type.

We feel that these police field incident systems are relevant to arson control efforts in two major ways. First, under certain circumstances, such systems operated by sophisticated crime analysis units may be able to replace some or all of the functions of an investigative information system. For example, the crime analysis unit may have the capability to perform sophisticated analyses of geographic and temporal patterns of arson that would be very laborious for the investigation unit to perform on its own. On the other hand, it may be that the crime analysis unit is able and willing to perform all analyses necessary to study the nature and extent of the arson problem, but that certain functions of an investigative information system

¹This system is described in U.S. Department of Justice, Law Enforcement Assistance Administration, Integrated Criminal Apprehension Program, Model Record System Manual and Reporting Guides, by Larry R. Walton and William D. Wallace, Washington, D.C.: Government Printing Office, 1977.

Figure 5.4

FILES FROM THE COMPOSITE INVESTIGATIVE INFORMATION SYSTEM
(Arrows show paths by which individual cases can be tracked from file to file.)



related to workload, case processing, and resource expenditure should be carried out by the investigation unit itself.

Before deciding that the investigation unit does not need to operate an information system because the local police field incident system fills the need, however, the investigative supervisor should ensure that the police field incident system will be responsive to the needs of the investigation unit. Will the investigative supervisor be able to get reports on very short notice when s/he needs them? Will the police system perform all of the functions performed by the composite investigative information system introduced in Section 5.3 of this chapter? How difficult will it be to modify the system to meet changing perceptions of the needs of the investigation unit? It is likely that the degree of control that the investigation unit achieves by operating its own system will outweigh any increased sophistication or cost saving achieved by having another agency operate a system for them. Under any circumstances, the investigation unit should establish a close relationship with any crime analysis units in their jurisdiction, and should provide the crime analysis unit with whatever data are possible to support crime analysis activities.

Second, there is at least one function that police field incident systems seem better suited to carry out than a system operated by the fire investigation unit. That function is identifying suspects on the basis of their physical descriptions. Many police departments maintain systems capable of retrieving the names of all persons meeting a particular physical description. These systems are usually based on arrest reports or on field interviews of suspicious persons.

These police field incident systems are likely to be far more useful for identifying arson suspects from physical descriptions than are systems based only on suspects known to the fire investigation unit, particularly when it comes to identifying suspects in arsons involving spite or revenge. Since arson is often only one of several possible means of acting out aggressive impulses, individuals are often already known to the police by the time they commit arson. Rather than have the fire investigation unit develop a system for identifying suspects on the basis of physical descriptions, it seems reasonable for the investigation unit to promote the development of general police systems for this purpose.

5.5 The Property Insurance Loss Register (PILR)

The Property Insurance Loss Register (PILR) is a nationwide computerized register of loss claims administered by the American Insurance Association on behalf of PILR member companies. PILR is a voluntary, self-supporting, non-profit subscription service. Claims adjusters of subscribing insurance companies submit a form containing certain basic information describing each claim they receive for fire losses of \$500 or more, whether considered

¹In November 1981, the threshold for reporting will increase to \$1,000.

suspicious or not. This form is submitted shortly after an initial inspection of the loss.

Among the information reported to PILR is the address of the fire, the date of the fire, the cause of the fire, and the name of the insured party. Some insurance companies also ask their adjusters to provide the names of other parties connected to the loss in such roles as occupant, mortgage holder, spouse of insured party, partner to insured party, corporate officer of insured party, attorney of insured party, and repair contractor. The form used to submit this information is shown in Figure 5.5.

The claims staff of the company insuring the reported loss later receives a computer-produced list of all previously reported claims that match the address or names listed on the reported claim in certain ways. The names and addresses of the adjusters reporting these related claims are provided so that the claims staff can further investigate these other fires.

The most important function of this analysis is to identify previous claims filed as a result of losses from the same fire. PILR is the only systematic mechanism available for detecting fraud perpetrated through duplicate claims. The benefits produced by this function of the PILR system are probably sufficient by themselves to justify the expense to the insurance companies of supporting the system. However, PILR has a number of other applications that are extremely valuable to the arson control effort.

First, the list of related claims lists not only prior claims made on the same property, but also all prior fire loss claims by the insured and, in some circumstances, prior claims where the other parties to the loss were involved.² This latter feature of the list of related claims makes it possible to identify members of arson-for-profit rings if their names are frequently associated with ostensibly innocent fires. In addition, the claims staff may be alerted to the fact that an arson ring known in some other jurisdiction is involved in their current case through contacting the adjusters of related claims parties.

Thus, through the lists of related claims, PILR seems to provide the most efficient mechanism available for detecting and monitoring the activities

¹The PILR data base itself does not identify any fire as arson or even as suspicious in origin. Suspicious or arson fires are shown as being of undetermined origin on the PILR record in order to avoid liability.

²The system does not merely search for any prior loss involving the same name (or combination of names). Such an approach would produce numerous uninteresting matches, e.g., all claims under policies written by the same agent. Instead, the system looks for improbable matches that would not occur in the normal course of business, such as the public adjuster on the current loss appearing as a partner to the insured on a prior loss.

The size of the geographic region which is searched depends upon how common the name or combination of names is. The more common the name, the more narrow the geographic region searched.

FIGURE 5.5 THE PROPERTY INSURANCE LOSS REGISTER (PILR) FORM
COMPLETE WITH AS MUCH FACTUAL INFORMATION AS POSSIBLE AND MAIL IMMEDIATELY AFTER FIRST INSPECTION.

PROPERTY INSURANCE LOSS REGISTER						1. Please type or print. 2. Use as many forms as necessary. 3. When more than one form is required then number the pages and staple together. 4. You MUST keep a copy for your files.		PAGE NUMBER
INSURED (If a business then enter full name of business)								
name (last, first, middle initial)				maiden/also known as		age	sex	1
spouse (last, first, middle initial)				maiden/also known as		age	sex	2
current address		street	apt. #	city		state	zip	3
previous address		street	apt. #	city		state	zip	4
LOCATION OF LOSS								
street (print "same" if insured's current address)				apt. #	date of loss		mo. dy. yr.	5
city		county	state	zip	time of loss		am pm	6
INSURED BY (Report ONLY those items involved and omit cents)								
company		policy no.		claim no.		7		
amount of policy		building	contents	stock	use & occupancy	other	8	
total insurance (if more than one policy)						9		
replacement cost value						10		
actual cash value						11		
estimated loss						12		
LOSS INFORMATION (Check applicable boxes)								
known cause of loss						was fire dept. report reviewed?		13
type of property <input type="checkbox"/> dwelling <input type="checkbox"/> multi-dwelling <input type="checkbox"/> commercial <input type="checkbox"/> industrial <input type="checkbox"/> other (specify)						14		
check box if vacant <input type="checkbox"/> check box if under construction <input type="checkbox"/> insured's fire losses in last five yrs: # <input type="text"/>						type of business (see codes) 15		
OTHER PARTIES TO THE LOSS (If a business, then enter full name of business)								
Enter Applicable Code 1—Partner, 2—Agent, 3—Attorney, 4—Corporate Officer, 5—Second Mortgages, 6—Public Adjuster, 7—Contractor, 8—Tenant, 9—Occupant, 10—First Mortgages, 11—Other								
name (last, first, middle initial)				also known as		16		
street		apt. #	city		state	zip	17	
name (last, first, middle initial)				also known as		18		
street		apt. #	city		state	zip	19	
name (last, first, middle initial)				also known as		20		
street		apt. #	city		state	zip	21	
name (last, first, middle initial)				also known as		22		
street		apt. #	city		state	zip	23	
ADJUSTER								
company or adjusting firm				I certify that I provided the above information and to the best of my knowledge, information and belief, all of such information is accurate.				
street				adjuster's signature				date of this report
city		state	zip					mo. dy. yr.
area code		telephone number	name of adjuster					

of interstate arson rings. The success of PILR in this role is, of course, dependent upon how diligent claims adjusters are in providing the names of other parties to the loss. This information is not required by PILR, and the adjusters for some companies rarely, if ever, provide this information. In order for PILR to succeed as a tool for discovering arson rings, not only must adjusters report the names of other parties to the losses, but they must also successfully penetrate attempts to conceal identities of participants through such devices as straw ownerships and dummy corporations.

As discussed in Chapter Three, coordination between law enforcement and insurance company representatives is essential to an effective attack on arson for profit. Another potentially important arson application of PILR is that it provides a mechanism for law enforcement authorities to use in contacting the appropriate insurance company. For a variety of reasons, law enforcement officials are generally not permitted direct access to PILR information such as the name of the company insuring a particular loss. However, when requested by law enforcement, PILR will inform the appropriate company that law enforcement officials are interested in making contact. The insurance company is then free to contact the authorities if it wishes.

A third important application of PILR in the arson area is in reporting fire loss claims to state fire marshals. Approximately 18 states require that insurance companies report all claims for fire losses above a certain threshold amount to some state agency such as the state fire marshal or the state insurance commissioner.² Fourteen of these 18 states will accept the PILR form as fulfillment of this requirement. In these states PILR forwards a copy of the form to the appropriate state agency, thereby saving subscribing insurance companies the immense costs often associated with such reporting requirements.

PILR has only been receiving claims information since November 1979, yet it already seems to be functioning quite well. Five hundred and twenty insurance companies collecting over 90% of the fire insurance premiums in the U.S. presently subscribe to the PILR service. As of May 1, 1981, there were 265,000 claims reports on file. During the first four months of 1981, 800 computer-produced lists of prior claims related to the reported claim were sent to insurance companies. A strong indication that the member companies

¹ Several other methods for identifying the appropriate insurance company are given in U.S. Department of Justice, Law Enforcement Assistance Administration, Enforcement Manual: Approaches for Combatting Arson-for-Profit Schemes, Volume II: Tactical Guides, by Clifford L. Karchmer and James Greenfield, Washington, D.C.: Government Printing Office, 1981, p. 218.

² Approximately 35 states also have a requirement that insurance companies identify suspicious fires to a state agency. While in 23 of these states a copy of the PILR form can be used as the instrument of notification, PILR itself does not participate in notification of suspicious fires. Instead, subscribing insurance companies submit copies of the PILR forms describing suspicious fires directly to the appropriate state agency.

³ In Kansas, PILR submits a computer tape of the keypunched PILR forms instead of hard copies.

of the American Insurance Association seem to be satisfied with PILR is that they have decided to proceed with development of a theft claims system which will be based on the same design.

From the investigators' point of view, it would be extremely useful for fire and law enforcement authorities to achieve unlimited access to PILR lists of previous claims related to a fire being investigated. If adjusters could be induced to provide complete information on other parties to each loss, the PILR lists of related claims represent a resource of immeasurable value to investigators. No other system can match the potential of PILR for detecting arson rings through linking ostensibly innocent claims and detecting the movement of known arson rings across state lines.

However, PILR cannot permit general access to its data base, both because of privacy statutes and because the data base could be analyzed to reveal information that would damage the competitive position of subscribing companies. A majority of states now have immunity laws that would presumably permit insurance companies to provide PILR lists of related claims to appropriate law enforcement authorities without being liable to suit by their policyholders. However, this avenue for information flow is dependent upon the often tenuous relationships between law enforcement officials and insurance companies discussed in Chapters Three and Four. This communication is also dependent upon the insurance company having sufficient interest and resources to convey the information. In the states that lack an immunity statute, subterfuge and subpoena are sometimes used to obtain PILR information.

A possible solution to the access problem would be for the state fire marshal to maintain a duplicate copy of the PILR data base and software. This could be facilitated by having PILR report the original fire loss claims to them on computer tape, rather than on hard copy. However, this would be costly and involve duplication of effort, as well as creating 50 state data bases instead of a single national data base.

A preferable alternative may be provided by a recent Illinois statute. The Illinois law will apparently require that a copy of the PILR list of claims related to any claim filed in the State of Illinois be provided to the state fire marshal for dissemination to the local unit responsible for investigating that fire. If it lives up to its promise, this procedure would provide the local investigator with everything he needs from PILR, at a minimum of cost to all concerned. The law also seems to meet the needs of PILR and its subscribing companies for protection from liability and protection of proprietary information.

5.6 Uniform Crime Reports

The purposes of including arson as a Part I offense in the Uniform Crime Reports (UCR) are to document the magnitude of the arson problem, the types of property burned, the total dollar loss due to arson, and the proportion of arson offenses cleared through arrest or other means. The UCR

program is designed to provide national as well as local statistics. The universe of objects described by UCR Part I reporting is restricted to known arsons. As a result, of all the information systems depicted in Figure 5.1, the UCR system describes the smallest universe of objects.

Whereas the NFIRS system (described in Section 5.2.4) maintains a separate record for each fire containing extensive information describing the characteristics of that fire, the UCR system contains only a single summary record from each police agency for each month. That record contains total counts, such as the number of arsons in that police jurisdiction during that month. The form used to submit these monthly reports is shown in Figure 5.6.

Because the UCR data consist only of aggregate counts, they are primarily useful in describing the magnitude of the arson problem. The only contribution to the study of the nature of the arson problem permitted by the UCR data is a breakdown by type of property and an estimate of property damage. On the other hand, because the NFIRS data consist of individual records on each fire, they provide the opportunity for very detailed and sophisticated studies of the nature of the arson problem. With modification of some of the UCR reporting categories and reporting jurisdictions, it would be possible to derive almost all of the statistics provided by Part I UCR reporting from data in the NFIRS format.

However, the proportion of the population that is covered by NFIRS reporting is still relatively small, and because the data contained in NFIRS are quite extensive, it is difficult and expensive to increase the percentage of the population covered. The major advantage of UCR reporting of arson is that it can cover most of the country by merely adding a new element to a well established system. The existing UCR system and the history of UCR arson reporting is described in the next section.

5.6.1 History of UCR Arson Reporting

Police agencies covering over 98 percent of the population of the United States make monthly reports to the FBI of the number of arrests made for various crimes. Most police agencies report through state level UCR agencies. For certain serious crimes, known as "index crimes" or "Part I offenses," the police also report the number of crimes committed--not just the number of arrests made. The original seven crimes included in this index for measuring the volume of crime were chosen because of their seriousness, frequency of occurrence, and likelihood of being reported to police. These were murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, and motor vehicle theft.

Arson has long been reported through the UCR as a Part II crime-- meaning that only the number of arrests for arson are reported. For some

¹ The data on offenses cleared could not, of course, be provided by NFIRS data.

FIGURE 5.6 MONTHLY RETURN OF ARSON OFFENSES KNOWN TO LAW ENFORCEMENT

[illegible]

Arson Definition

The offense of arson is defined by the national Uniform Crime Reporting (UCR) Program to include any willful or malicious burning or attempts to burn, with or without intent to defraud, a dwelling house, public building, motor vehicle or aircraft, personal property of another, etc.

Instructions

In Column 2, report all arson incidents which occurred in your jurisdiction and became known to your department during the month. Use your law enforcement jurisdiction and not fire districts to determine if an arson incident should be scored on your report. Count all arsons even though the offenses may have occurred in conjunction with violent crimes reported on the Return A. Include attempts to commit arson. Also, include "unfounded" reports of arson.

In Column 3, include all reports of arson which prove to be unfounded; those reports which prove upon investigation to be baseless and no offense of arson was committed or attempted.

In Column 4, enter the number of actual offenses of arson. This number is obtained by subtracting the number in Column 3 from the number in Column 2. Include attempts to commit arson.

In Column 5, enter the total number of arson offenses which were cleared by arrest or exceptional means.

In Column 6, enter the number of arson offenses cleared by arrest or exceptional means involving only persons under 18 years of age. This number is included in Column 5 and excludes those situations in which one or more of the persons involved were 18 years of age or over.

In Column 7, enter the number of arson offenses listed in Column 4 which involve structures (A. - G. only) which were uninhabited, abandoned, deserted, or not normally in use.

In Column 8, enter the estimated value of property damage for all arson offenses listed in Column 4. Enter zero (\$0) if no property damage.

The UCR Handbook may be used as a guide to preparing this reporting with two exceptions:

1. The hierarchy rule will not apply in this additional report. Any other crime index offense occurring in conjunction with an arson will be reported on the Return A and the arson will be reported on this report.
2. If one of the property crimes occurs in conjunction with the arson, the value of the stolen property will be reported on the supplement to Return A and the property loss due to fire, smoke, war, or other damage resulting from the arson will be reported in Column 4 of this report.

Each agency is requested to submit this arson form each month even if there are no arsons or attempted arsons to report. (In those instances, please submit the form indicating "None" or zero (0) arson offenses.)

Any questions regarding this report may be addressed to Uniform Crime Reports, Federal Bureau of Investigation, U. S. Department of Justice, Washington, D. C. 20535, telephone (202) 324-2614.

time it has been a high priority of the USFA to have arson reported as a Part I crime--meaning that the incidence of arson would also be reported. This was desired for two reasons:

- It formally recognizes the seriousness of the crime of arson by associating it with the other serious crimes.
- By collecting incidence figures, the sheer size of the arson problem can be documented. This focus on the magnitude of the problem should presumably result in public willingness to devote increased resources to addressing the arson problem.

Arson has been reported as a Part I crime since 1979, but thus far, the reporting has been incomplete. Only partial reporting was possible during 1979, because the reporting forms were not distributed early enough to capture the entire year. For 1979, approximately 8,500 of the 15,000 police agencies reporting to UCR (covering 61 percent of the U.S. population) submitted six or more monthly reports. The reports for 1980, published in September 1981, were more complete, with more than 11,000 UCR agencies reporting at least six months of data.

It is not clear whether arson's Part I status will be permanent. Arson has not yet been fully integrated into the reporting of other Part I offenses, as evidenced by its exclusion from the "hierarchy" rule that governs all other offenses. While exclusion from the hierarchy rule is certainly justifiable on the grounds that it facilitates examination of trends in the other index crimes over time, exclusion also means that arson could be dropped from the list of Part I crimes in the future with minimal disruption.

For several reasons, arson may not belong on the index list at all. While arson certainly meets the seriousness and frequency of occurrence criteria for inclusion in the list of index crimes, it does not meet the criterion of high likelihood of being reported to police. Unlike most of the other index crimes on the list, the commission of the crime of arson does not typically come to the attention of police through victim reports. Thus, the number of crimes that become known to the police is related to the amount and quality of effort spent on detection.

UCR reporting of arson has a number of other limitations as well. These are discussed below.

¹ The hierarchy rule requires that each offense be counted only once and that it be counted under the most serious category that is appropriate. Arson is excluded from this rule in the sense that arson offenses which could also be classified under some other category are counted twice.

5.6.2 Limitations of UCR Arson Statistics

Chapter Two of this report details a number of reasons why the reported arson rates in different jurisdictions may not be comparable, including the following:

- The number of arsons reported depends to a large extent on the amount of effort expended on arson detection.
- Some jurisdictions include small loss incendiary fires in their statistics as arson fires, while other jurisdictions do not. Because the number of fires set in trash dumpsters can be quite large, how these fires are reported can make a large difference in reported arson rates.
- Some jurisdictions classify many fires as "suspicious" that might otherwise be called arsons, while other jurisdictions almost never use the "suspicious" category.

The UCR reporting procedure has done little to deal with these comparability problems. Because the UCR procedure aggregates reports that mean different things, from different jurisdictions, the overall counts are difficult to interpret.

While the FBI has specified a common definition of arson for use in the UCR program, that definition itself produces certain ambiguities. The definition is as follows:

Arson is defined by the Uniform Crime Reporting Program as any willful or malicious burning or attempt to burn, with or without intent to defraud, a dwelling house, public building, motor vehicle or aircraft, personal property of another, etc.

Only fires determined through investigation to have been willfully or maliciously set are classified as arsons. Fires of suspicious or unknown origins are excluded.

One ambiguity in this definition is that it appears to classify lawful burning of a dwelling for demolition purposes as arson. The "et cetera" which concludes the list of arson targets is also confusing.

¹ William H. Webster, Crime in the United States 1979, (Washington, 1980), page 34.

In addition, the definition appears to leave the distinction between suspicious fires and arsons entirely to local usage. Leaving to local fire investigators the question of which fires are to be excluded because they are "suspicious" might seem a prudent way to exclude fires of questionable origin from the statistics. However, the lack of a UCR definition of "suspicious" may eventually lead to an undercount of arsons because the most widely used definition of suspicious fires is very conservative. The NFPA 901 coding structure, which is used in the NFIRS and UFIRS data systems, requires that very stringent criteria be met before a fire can be classified as incendiary, otherwise the fire is classified as merely "suspicious." It appears that many, if not most, of the fires that trained investigators would classify as arson would be classified as "suspicious" under the NFPA 901 definition. This produces no problem for the NFIRS system because it also captures suspicious fires. However, UCR reporting ignores suspicious fires. Thus, if the NFPA 901 definition of suspicious fires were used by agencies reporting to the UCR program, a severe undercount might result.

To eliminate this problem, the UCR program might wish to consider one of two options. It could explicitly reject the NFPA 901 definition of "suspicious" origin fires and specify a definition of its own. An alternative would be to include fires meeting the NFPA 901 definition of "suspicious" as arsons for UCR purposes. In order to eliminate marginal fires from the statistics, one could rely on the existing requirement that the cause determination result from an investigation.

Even if these definitional issues were resolved, the UCR program might continue to have serious problems. The agencies whose participation is required for the success of UCR reporting of arson as a Part I offense include the local police agency, the state UCR agency, the FBI, and very often, the local fire department. It is entirely possible that some of these agencies may not see UCR reporting of arson as essential to the protection of their vital interests. As a result, the FBI may have difficulty getting enough cooperation from all of these agencies to ensure high quality data from the UCR reporting program. If the FBI can overcome these problems, the UCR data will make a valuable contribution to the national and local picture of the arson problem.

5.7 Early Warning Systems

The term early warning system is used here to mean an information system which identifies buildings that are likely to become targets of arson. The reason for identifying such buildings is to take possible preventive actions such as:

- offering assistance to the building owner in order to provide financially viable alternatives to burning the building;
- taking steps to force owners to keep buildings economically viable, such as code enforcement;
- encouraging action by concerned citizen groups;
- providing warnings to specific owners; and
- focusing deterrent patrols on buildings at risk.

Early warning systems are characterized by a separate record for each building to be monitored. As shown in Figure 5.1, this constitutes the largest potential universe of objects described by any of the systems discussed in this chapter.

Efforts to make predictions about how much arson there will be in whole neighborhoods are also sometimes referred to as early warning systems. The study of the local arson problem that is urged in Chapter Two of this report should include the examination of economic and demographic trends in neighborhoods that is usually envisioned when the term early warning system is used in this way. The use of the term early warning system is reserved here for systems that make predictions about individual buildings.

In developing an early warning system, a great deal of information is typically gathered that might be useful in predicting whether a building will experience an arson. This information may include such things as information on the character of the neighborhood; information on owners; financial history and present condition of the property; tax, insurance, and building code violation history; occupancy rate; and fire history. The rules for using this information to determine whether a building is at-risk are typically derived by the comparison of a group of buildings which experienced arsons with another group of buildings which did not. On the basis of this comparison a model is developed which usually identifies a subset of the original data elements that can do almost as good a job of predicting arson occurrence as the full set of data elements. The model is usually developed using computerized statistical procedures such as discriminant function analysis or regression analysis.

Many of the existing early warning systems have been developed with the aid of funding from USFA under the Arson Information Management System (AIMS) program. As discussed above, the USFA concept of an arson information system encompasses not just the information system itself, but also many of the social or administrative processes that surround, influence, or are influenced by the information system. In the remainder of this chapter, the focus is on the information system alone.

¹ See the Ignition Factor data element in NFPA No. 901, Uniform Coding for Fire Protection 1976, Boston: NFPA, 1976, p. 121. A 1981 revision of this standard is being prepared.

5.7.1 Three Approaches to Early Warning Systems

Early warning systems can differ in a number of respects including the effort and expertise necessary to develop the prediction model, reliance on computers, number of buildings researched and identified, cost per building, and accuracy of the prediction. To demonstrate the range of possible variation, we will discuss the systems developed in New York City, New Haven, and Boston.

The New York Approach

The Arson Risk Prediction Index (ARPI) developed by the New York City Arson Strike Force is entirely computerized. In looking for variables to predict the occurrence of arson, the strike force considered only those available on existing computerized files. The advantage of this approach is that it keeps the per building cost of predictions very low.

To construct the ARPI model, the New York group compared 9542 buildings that had experienced arsons with 12,223 randomly selected buildings that did not. The variables ultimately used in the model to predict arson included:

- length of time in tax arrears;
- number of previous fires;
- presence of previous suspicious fires;
- vacancy rate;
- building type; and
- building location.

In predicting which buildings would be burned, a computer file was constructed on the more than 700,000 buildings in New York City. A score was then generated for each building reflecting the likelihood of an arson in that building.

The New York system produces risk scores for all buildings that gradually shade from low to high risk without any sharp cutting point that identified high-risk buildings. However, it is probably fair to say that somewhere between 9,000 and 37,000 buildings in New York have ARPI scores indicating they are in need of an intervention. This is a fairly large

¹When pressed to name the lowest ARPI score which he felt would be useful in identifying buildings in need of intervention, Mr. Robert Pesner of the New York City Arson Strike Force gave a score of 1.05. Approximately 37,000 buildings in New York have ARPI scores this high or higher. Approximately 9,000 buildings have ARPI scores higher than 1.85, which is the highest score he felt might be useful for this purpose.

number of buildings, constituting 1.3% to 5.1% of the buildings in the city.

The ARPI scores have been used to target buildings for visits by fire marshal teams in their landlord contact program. In this program, funded by \$226,000 from Aetna Life and Casualty, the fire marshals try to assist landlords of high-risk properties to find the means to preserve and protect their properties. Unreceptive landlords are served notice that fires in their buildings will receive particular investigative attention.

The ARPI scores have also been used to list the buildings in particular neighborhoods from highest risk to lowest risk. These ordered lists have been used to alert community groups to possible targets of arson. The community groups seem to have information about the highest-risk buildings that is more accurate and timely than the ARPI scores, but the ARPI scores seem to be useful in identifying somewhat lower-risk buildings that may have escaped notice of the community groups.

The New York system has encountered two important problems. First, the predictions are often out of date, the building having burned or been rehabilitated by the time it is identified as being at risk. This problem is created by the fact that the data on which the predictions are based are sometimes long outdated before they are available for use by the early warning system. One of the high priorities of the staff working on the system is to obtain more timely data in order to avoid this problem.

A second problem faced by the New York system has been in finding ways to use the ARPI scores. This is a problem in finding interventions that can exploit the information yielded by the early warning system. In New York the problem seems to derive partly from the fact that the ARPI score permits slightly accurate predictions on many buildings rather than highly accurate predictions on a few buildings. The ARPI score does not allow one to draw a sharp line between two groups of buildings, one of which will definitely experience arsons and the other of which will not. Instead, the ARPI score only permits one to say that the arson rate will be somewhat higher in one group than in the other. It is difficult to find interventions that can make use of this information. For example, it is not feasible to use high cost interventions such as surveillance in conjunction with such a predictor score.

The New Haven Approach

The Arson Warning and Prevention Strategy (AWPS) in New Haven considered not only variables available in computer media, but also some variables considered of high predictive value that would require manual data collection. This potential increase in accuracy came at the expense of higher costs per building monitored than would have been incurred by using only existing computerized information.

To develop the AWPS model, information on over 200 predictor variables was collected for 100 buildings that had experienced arsons and 100 nearby buildings that had not. It was found that the following four "trigger" variables could be used to predict arson:

- presence of tax arrears;
- number of previous fires;
- housing code violations; and
- presence of liens against the building.

The predictions were made by merging a list of buildings that had previous structural fires with a list of those in tax arrears. The resulting list was merged with a list of buildings having housing code violations, and so forth. This produced a file of buildings with one or more "trigger" variables present. Those buildings with all four trigger variables present were targeted for intervention efforts. The original lists were constructed on index cards. Though the system is now maintained on a computer, computerization is not necessary to any of the essential functions of the system.

Since predictions were first made in New Haven 17 months ago, only 30 buildings with all four "trigger" variables have been identified. Because this number was so small and these buildings were already so deteriorated, and because the project had greater intervention capacity, the list was expanded to include buildings with only three "trigger" variables present. A total of sixty buildings have been identified using these criteria. Still, this constitutes only 0.2 percent of the buildings in the city. An additional 120 buildings have been identified as high risk by means other than the early warning system, such as tips by investigators.

A number of intervention strategies have been applied to the 180 "high-risk" buildings. Approximately one-third of these buildings are visited twice a month by a police department patrol which reports on any changes in the current condition of the building. The same buildings are inspected once a month by fire department personnel to detect any code violations and to update pre-fire plans that have been developed in case the building does burn. A different third of the group of high-risk buildings is inspected in this fashion every four months. A dossier is maintained on each high-risk building including information on insurance coverage, insurance claim and loss history, mortgage holders, conveyances, and ownership. These buildings are given special attention in housing code enforcement efforts and the insurance companies holding the policies are informed of the buildings' status.

The Boston Approach

The Boston approach combines a system for identifying high-risk buildings developed over several years by Urban Educational Systems (UES) and a range of intervention strategies developed and implemented by the Massachusetts Attorney General's Office under the ACAP grant. The UES system makes use of information that requires extensive manual data collection in attempting to achieve very high levels of accuracy in prediction. UES has researched 78 buildings in Boston that experienced arsons and 78 comparison buildings that did not experience arsons. In an effort to find the best possible predictors of whether a building will burn, they have gone back as far as ten years prior to the fire and have looked for information as difficult to uncover as rate of return on the building and the owner's financial status, business associates, and other property. This information has included more than 300 variables divided into economic stress factors on the building and characteristics of the owner. As have all of the projects discussed here, UES developed a rule for using a small part of this information to predict arson.

The UES model is deeply embedded in a philosophy of community involvement designed to revitalize threatened communities. This philosophy is a natural consequence of UES's origins in the Symphony Tenants Organizing Project, which conducted a widely publicized and ultimately successful campaign against arsonists in a Boston neighborhood. UES's willingness to rely on information requiring great manual effort derives in part from the fact that the Boston approach is designed for operation by community groups with access to substantial volunteer labor.

UES has been providing technical assistance to a number of community groups around the country which are developing early warning systems. Under the Massachusetts state ACAP grant, UES has adapted its model for use in three high arson neighborhoods in Boston. On the basis of preliminary research and street information, the model has been modified to suit the type of arson occurring in the neighborhood where it is used. For example, in one neighborhood the model uses the following variables to predict arsons:

- number of previous fires causing more than \$1000 damage in buildings owned by the same owner;
- whether the building is being rehabilitated or converted to condominiums;
- number of mortgages on the building;
- whether the mortgages are held by a bank or by private individuals; and
- number of building code violations.

Collection of some of this information requires considerable search through public records. As a result, buildings are screened on the variables that are easier to collect, and buildings that receive a clean bill of health on these accessible variables are eliminated from consideration as high risks. The data collection and evaluation process being used in Boston is entirely manual. At the same time, however, UES is giving technical assistance to two community groups in New York who are using computerized approaches.

Using labor from community groups, UES has researched 700 buildings in Boston. However, since these buildings are all in high arson neighborhoods, the number identified as requiring an intervention (100) was large relative to the number of buildings researched. Though UES has no systematic data on the accuracy of its research, their staff claim to have caused a substantial reduction of arson in their target neighborhoods.

Buildings identified by UES as requiring intervention are referred to the Attorney General's Office for review and possible action. A wide range of intervention strategies has been developed. The Attorney General's Office has worked with city agencies to have vacant buildings boarded up and has brought civil suit against owners to recover the costs of bringing buildings into compliance with codes under the provisions of Massachusetts law. The owners of certain buildings have been required by the Attorney General's Office to provide the particulars of their insurance coverage. As a result of this information, the Massachusetts FAIR Plan has been notified to cancel coverage on a number of buildings.

The Boston approach is notable for its basis in public-private cooperation and for the range and effectiveness of its intervention strategies.

Cross-Site Comparison

Table 5.3 summarizes and contrasts the distinguishing features of the three early warning systems. Some conclusions which emerge are:

- The computerized approach in New York requires a relatively low degree of manual effort and little expertise in property research. As a result, it allows large numbers of buildings to be researched and identified as needing an intervention at little cost. However, accuracy may be low.
- The Boston approach stands in contrast. The intensive manual effort devoted to collecting information about each building requires substantial expertise in property research and involves high costs per building researched in an effort to achieve high accuracy in predictions. Of course, the Boston system is intended to make the hardest predictions, distinguishing buildings that will be burned from buildings that will not be burned when

Table 5.3
Distinguishing Features of Three Early Warning Systems

	New York	New Haven	Boston
Manual effort required for data collection	none	moderate	high
Degree of expertise in property research required to collect data	none	moderate	high
Degree of reliance on computers in making predictions	high	computer possible but not necessary	none
Cost per building researched	low (less than \$.30) ^a	moderate (\$1 to \$6) ^b	high (\$20-\$220) ^c
Number of buildings for which predictions have been made	all buildings in the city (~700,000)	all buildings in the city (~30,000)	very small (~700)
Number of buildings identified as needing an intervention	(9,000-37,000) (1.3%-5.1%)	(60) ^d (0.2%)	(~100) (~14.3%)
Cost per building identified as needing an intervention	low (less than \$22)	high (\$500-\$3,000)	moderate (\$140-\$1550)

^aThe upper limit of \$.30 was estimated by dividing all external funding of the Arson Strike Force over its lifetime (approximately \$200,000) by the number of buildings on which predictions were made (approximately 720,000).

^bThe upper limit of \$6.00 was estimated by dividing the total funding of the AWPS project for 3 years (approximately \$175,000) by the number of buildings about which predictions were made (approximately 31,000). The lower limit was derived by assuming that the one time development costs of the system which would never have to be repeated would not amount to more than 5/6 of the total cost.

^cThe upper limit of \$220 was estimated by dividing the \$155,000 UES received for the ACAP grant by the 700 buildings they researched under the program. This figure is too high for the costs of the early warning system alone, because the costs of some of the interventions were covered in the \$155,000 amount. The lower limit of \$20 was provided by Earnest Garneau of UES in a personal communication on July 22, 1981. This estimate is based on the assumption that 7000 buildings would be researched, which would produce some economies of scale.

^dAn additional 120 buildings were identified for intervention by other means, including tips from investigators.

^eSome of the costs included here reflect one time costs of developing the early warning system technology. These costs would not have to be borne by cities who copied the methods tested in other jurisdictions.

all the buildings are located in high risk neighborhoods. Because all of the buildings researched were in neighborhoods with high arson rates, a high proportion of buildings were identified as needing an intervention, and the cost per building identified as needing an intervention was not extremely high.

- The New Haven approach falls between the other two systems in terms of manual effort required for data collection, degree of expertise in property research required, and cost per building researched. The cost per building identified as needing an intervention was high, however, because many buildings were researched and only a few were identified as needing an intervention.

5.7.2 Recommendations

It is typically very expensive to create the data base needed for an early warning system. The core data base needed for the early warning system--a file of all buildings containing information from many agencies--has to be created especially to serve the purposes of the early warning system. This file is created either by merging separate existing files or by creating a file from scratch.

At the same time, there is no single well established agency whose essential function is served by an early warning system data base. Thus, it may require considerable skill to obtain sufficient financial support for early warning systems. This support would be easier to obtain if better proof of the effectiveness of early warning systems were available.

The question of system effectiveness can be broken into two parts. First, are the predictions made by the model accurate, and, second, can these predictions be combined with an intervention strategy that is effective in reducing arson? Each of these is discussed below.

¹The data bases for most of the other information systems discussed in this chapter are necessary to serve the vital needs of a well established agency. For example, a data base of fire incidents is vital to the fire suppression role of the fire department. A data base of investigative records is vital to the operations of the investigation unit. A data base of fire loss claims is vital to PILR's most primary mission of detecting duplicate claims.

The New Haven project is addressing this problem in an interesting way. Efforts are being made to use the early warning system data base to provide services to other existing agencies such as the planning department.

Accuracy of Predictions

An early warning system must be able to predict arsons if it is to be of any use. Very little data exist on the accuracy of the predictions made by these systems. All of the projects have published data on the accuracy of their systems within the samples of buildings on which the models were developed. However, for a number of reasons, these development samples are not adequate for testing the usefulness of the systems in identifying future arson targets. One major reason is that the development samples used with these systems had to contain a much higher proportion of arsons (approximately 50%) than are encountered when the system is used to make predictions (approximately 0.5%).

One problem in assessing the accuracy of the predictions made by a system is that if all the buildings identified by the system as being high risk are prevented from burning through appropriate interventions, then there will be no way of distinguishing whether the buildings did not burn because the early warning system was inaccurate, or because the interventions were effective.

A second important consideration in assessing the accuracy of an early warning system is: just how accurate does the system have to be before it is useful? The comparison that is most likely to be provided is to compare the number of arsons accurately predicted by the early warning system to the number of arsons that would have been accurately predicted by some kind of chance procedure. Instead, we would suggest comparing the number of accurate predictions made by the early warning system to a standard such as the number of accurate predictions that an investigator could make on the same set of buildings on the basis of his knowledge of the community at large. A more stringent standard would require that the early warning system make more accurate predictions than those made by a community group involved in combatting arson in the neighborhood where the buildings were located.

¹Mr. Robert Pesner of the New York City Arson Strike Force was kind enough to provide us some information relating ARPI scores to arson incidence for all buildings in the city, not just for a development sample. As Mr. Pesner pointed out, however, there was a confounding between the ARPI scores and the measure of arson incidence that makes these data useful only in estimating an upper bound on the accuracy of the ARPI score. This upper bound was quite high, implying that the ARPI score might be quite useful in predicting arson incidence.

Apart from these data, we are not aware of any data that show that early warning systems are useful in identifying arsons before they occur.

²One way of avoiding this problem is to collect data available in a year prior to the development of the early warning system and to "predict" the arsons that occurred prior to the implementation of the early warning system. Generally, this would involve constructing the early warning system data base for a period of time just prior to that covered by the sample of arsons which was used to develop the system.

One reason for suggesting this standard for comparison is that much of the predictive accuracy of some of the systems is easy to achieve. For example, the New York system takes advantage of the fact that the neighborhood in which a building is located is very predictive of whether it will suffer an arson. Using the judgment of someone such as an investigator as a standard for comparison prevents an early warning system from being credited with such easy predictions. This standard would put the Boston system, which makes a small number of very difficult discriminations, on a more even footing with the New York and New Haven systems, which make many easy discriminations. Another reason for using the judgment of a knowledgeable person as a standard for comparison is simply that a system which is fairly costly to implement should be more accurate than cheaper and simpler methods of making predictions.

Effectiveness of Intervention Strategies

To be useful, the predictions of an early warning system must not only be accurate but also facilitate the design of an effective intervention program. The intervention strategies that could be applied in conjunction with each system depend partly upon the accuracy of predictions yielded by the system. Thus, if it is almost certain that a particular building will experience an arson, then fairly expensive interventions can be applied to that building. On the other hand, if the best the system can do is to identify some buildings as being slightly more likely than other buildings to experience an arson, then it is not practical to apply high cost interventions to those "higher" risk buildings. Thus, the cost of the interventions used with a particular system must match the accuracy of the predictions yielded by that system. As mentioned earlier, the New York Arson Strike Force has had some difficulty in finding interventions that can take advantage of the ARPI scores produced by their system. We suggest that the interventions used with an early warning system be considered an integral part of the system for purposes of evaluation. Thus, we would judge a highly accurate system to be of little value if no effective intervention can be found to use with it.

One way of assessing the effectiveness of the interventions used in conjunction with an early warning system is to compare the arson rate in a group of high-risk buildings that are receiving the intervention with the arson rate in a comparable group of high-risk buildings not receiving the intervention. Of course, numerous issues of research design are involved in determining the comparability of the two groups of buildings.

The New York Arson Strike Force is undertaking just such a study of the effectiveness of their landlord contact program. Because there are insufficient resources to contact the landlords of all at-risk buildings in the city, some areas of the city will not be reached. The arson rates in these areas will be compared with the arson rates in the areas served by the program.

If an evaluation of an early warning system includes a comparison of arson rates in buildings receiving and not receiving intervention, it should be possible to estimate how many arsons and how much dollar loss and death and injury can be prevented by the use of the intervention in conjunction with the early warning system. If the evaluation demonstrates the usefulness of early warning systems, this information would be highly useful in persuading local governments to shoulder the costs of an early warning system.

In summary, it is possible and practical to evaluate the effectiveness of early warning systems. Some of the federal money being spent to develop the systems should be devoted to determining if they are useful. If the findings are positive, they can be used as strong arguments to persuade local governments to fund such systems.

5.8 Summary and Conclusions

We have reviewed a diverse group of information systems that contribute to the arson control effort in quite different ways. In this section, we review each of these systems briefly, pointing out their strengths and limitations.

Fire incident systems are capable of describing the extent and, to some degree, the nature, of the fire problem in a community. However, if these systems are to be useful in describing the arson problem, good fire investigation is required and the systems must be updated to reflect the outcomes of these investigations.

The National Fire Incident Reporting System is a local, state, and national fire incident system. As more and more fire departments participate in the system, it will become increasingly useful for assessing the nature and extent of the national arson problem, particularly if the 904 Standard for investigative reports is adopted by NFIRS. NFIRS can serve as the tool for statewide management of the arson problem as discussed in Chapter Seven of this report. Quite apart from any application in the area of arson, NFIRS makes possible, for the first time, comprehensive longitudinal and cross-site statistical studies of factors related to fire rates and can be used effectively to target resources.

Investigative information systems are essential elements in the fight against arson, and they are the most important information system related to arson. Investigative information systems make a vital contribution to the apprehension of arsonists and they provide the information needed to plan a broad arson control strategy that encompasses prevention as well as enforcement activities. We believe that investigative information systems are so important that we have proposed a manual investigative information system in Appendix C. This system is a composite of the best elements we found in the ACAP sites and other jurisdictions.

Police field incident systems serve the entire police department in much the same way that investigative information systems serve the fire investigation unit. These two information systems can support each other in several ways, whether the fire investigation unit is located in the fire or police department: the investigation unit can provide data, particularly on offenders, to the police system; personnel operating the police system can offer technical assistance in the operation of the investigative system; and the police system may be able to carry out some of the functions of an investigative information system. Under some circumstances, a police field incident system might be able to provide all of the services of an investigative information system, making a separate system unnecessary. As noted in Section 5.4, however, it is likely that the degree of control that the investigation unit achieves by operating its own system will outweigh any increased sophistication or cost saving achieved by having another agency operate a system for them.

The Property Insurance Loss Register (PILR) is potentially a very powerful tool for identifying suspicious fires through linkage to previous fires. This potential will be realized, however, only if participating insurance companies induce their adjusters to file a complete report to PILR, including the names of all parties to the loss, such as business associates and attorneys of the insured party, mortgage holders, and repair contractors. A second problem relates to law enforcement authorities gaining access to the output from the PILR system. A recent Illinois statute may provide a solution to this problem, however, by requiring that PILR provide a copy of any reports produced by the system for claims filed in that state to the state fire marshal for dissemination to cognizant local investigative agencies.

The recent addition of arson to the list of Part I offenses reported under the Uniform Crime Reports program will soon provide data on the incidence of arson in almost every community in the United States. However, the difficulty of detecting arson, problems in defining arson, and the difficulty involved in gathering data from a number of disparate organizations may limit the quality of these data. Further experience will determine whether the FBI will be able to overcome these obstacles.

Early Warning Systems identify buildings that are likely to become targets of arson. These systems differ in terms of the degree of computerization of the data collection process, the cost per building researched, and the potential accuracy of prediction. In order to develop the political support needed for local funding of such systems, they must first be shown to be effective. Some of the federal money being devoted to technical development of such systems should probably be devoted to evaluating their effectiveness.

In general, we have observed that information systems are very costly to operate and that successful systems tend to serve the vital interests of the organization that operates them. In some instances, the arson applications of the system are secondary, as in the case of PILR and fire incident systems.

The National Fire Incident Reporting System and the reporting of arson as a Part I offense through the Uniform Crime Reports will both help to provide better data on the nature and extent of the national arson problem. However, neither of these systems can capture a true picture of the problem in the absence of accurate detection of arson by local fire investigators.

CHAPTER SIX
THE ARSON TASK FORCE

It is generally agreed that an effective anti-arson program requires the cooperation of numerous agencies, organizations, and individuals. Fire and police departments, prosecutor offices, insurance companies, and citizen groups all have a stake in and an important contribution to make to arson prevention and control. Yet to maximize effectiveness, the efforts of these groups must be coordinated. An arson task force can provide impetus and political support for arson prevention and control, mobilize resources, and assist in planning and implementing anti-arson programs.

The concept of a task force is well established. The dictionary defines a task force as "a temporary grouping under one leader for the purposes of accomplishing a definite objective." Task forces have been formed to deal with a variety of social issues such as drug abuse, the plight of the handicapped and the elderly, housing, and education. Task forces have also been established to deal with problems of crime and the criminal and juvenile justice systems. This chapter examines the arson task force as a widely-advocated means of inducing various agencies, organizations, and groups to cooperate and to coordinate their resources and activities for the control of arson.

Arson task forces are broadly defined in terms of their geopolitical scope, the purposes they serve, and their membership. This chapter deals exclusively with arson task forces serving cities, towns, counties, or combinations of these units. In its Implementation Kit on municipal arson task forces,³ the U.S. Fire Administration characterizes the "local" task force as follows:

"The essential job of the arson task force is to provide the conceptual framework and coordination necessary to establish a system for the prevention and control of arson. Usually the mayor/city manager acts as chairperson and is responsible for providing overall executive direction and guidance."

A "program model" on arson prevention and control, developed for the National Institute of Justice, speaks of:

¹ Webster's New Collegiate Dictionary (Springfield, Mass.: G. & C. Merriam Co., 1974).

² State arson task forces are discussed in Section 7.7.3.

³ This is one of a series of pamphlets available from the U.S. Fire Administration covering a range of arson control topics.

"... an independent, interagency capability or task force to control and direct the diverse community resources necessary for arson prevention and control."

Another definition of the arson task force is provided by the Insurance Committee for Arson Control:

"The arson task force is an effective coalition mechanism whereby communities can organize and bring about cooperation among the disciplines and resources necessary to stop arson."²

All three sources state that membership should be determined by local needs and circumstances. The Fire Administration describes a typical arson task force as including:

- the mayor;
- city council members;
- the fire chief;
- the police chief;
- other elected officials;
- representatives of fire and police labor organizations;
- the prosecutor;
- the housing department director;
- insurance representatives;
- prominent citizens;
- chamber of commerce representatives;
- public safety committees.

¹ National Institute of Justice, U.S. Department of Justice, Arson Prevention and Control: Program Model (Washington, D.C.: Government Printing Office, January 1980), Chapter 2.

² Insurance Committee for Arson Control, "How to Organize an Arson Task Force in Your Community," Journal of American Insurance, Vol. 54, No. 3.

Membership on the arson task force is, of course, in addition to the regular duties and other commitments of both public and private sector members.

6.1 Some Examples of Local Arson Task Forces

This section presents several examples from ACAP jurisdictions which serve to illustrate variations in the purposes, sponsorship, membership, organization and accomplishments of arson task forces. Each of these issues is discussed at length in subsequent sections.

Baltimore City, Maryland

The Mayor of Baltimore formed an arson task force in late 1979. A group consisting of fire and police officials, a prosecutor from the Baltimore City State's Attorney's Office, and other city officials first met in January 1980. The Chief of the Fire Department was designated as chairman. The Mayor's Arson Task Force has met regularly since its inception: weekly in its first three months, bi-weekly during the next nine months, and monthly in its second year of existence. All meetings have been attended by a minimum of 15 to 20 members. New members have been added to the task force as needed. Presently, there are 38 members representing a broad spectrum of city, state and federal agencies (including the Mayor's Office; city fire and police departments; city agencies for housing, community development, and education; juvenile services agencies; and the U.S. Department of Housing and Urban Development), as well as the insurance industry and a property owner's association.

The Baltimore City Task Force has engaged in problem analysis, planning, coordination, and fund raising activities. Its primary mission has been to identify and coordinate all city resources that might be brought to bear in fighting arson.

Malicious fires set by juveniles have been a particular concern to the task force since its inception. These are believed to constitute over half of the arsons in the city. Upon discovering that far fewer juveniles enter juvenile court than the fire department suspects are involved in setting fires, the Assistant State's Attorney on the task force contacted an official of the State Juvenile Services Administration to learn more about this discrepancy. Eventually, this official joined the task force and helped shape a statement of agreement calling for four city agencies, two State agencies (including the Juvenile Services Administration), and the insurance industry to refer to a Fire Department Liaison Officer juveniles exhibiting a propensity to set fires. The officer, in turn, is responsible for referring the juvenile to counseling (see Section 4.3.2).

Subcommittees were established to deal with other aspects of arson control in the city. The public information subcommittee developed a program to enhance public awareness of arson through brochures, bumper stickers, billboards, busboards, and notices on electric bills and city

employee pay stubs. The insurance subcommittee, headed by the Joint Insurance Association (Maryland's FAIR Plan), provides a channel of communication between the task force and the insurance industry. This facilitates information exchange between insurers and investigators. It also helps officials secure public education materials and encourages insurance industry funding for anti-arson initiatives.

The detection, investigation, and prosecution of arson are coordinated under Baltimore's Arson Strike Force, consisting of three assistant state's attorneys, one police detective, and two fire investigators. The Strike Force is headed by one of the assistant state's attorneys, who also represents the Arson Strike Force on the Mayor's Arson Task Force. Policies, procedures, and forms developed by the Strike Force to improve coordination were adopted by the fire and police departments and the State's Attorney's Office. Observers in Baltimore felt that the task force greatly facilitated this process.

Although the ACAP funds are expected to expire in early 1982, several officials indicated that the Mayor's Arson Task Force could easily convene as needed after that time.

Dayton, Ohio

The Dayton/Montgomery County (Ohio) Arson Task Force was formed under the direction of the City Manager in early 1980, coincident with the ACAP grant to that city. Appointed to the task force were Dayton's police and fire chiefs; the sheriff of Montgomery County; the County Prosecutor; the City Manager of a neighboring jurisdiction (Miamisburg); an agent of the Bureau of Alcohol, Tobacco and Firearms; representatives of the insurance and banking industries, the City and County Boards of Education, business and neighborhood organizations, and the city Department of Urban Development; and the news media. The media representative was elected chairman of the task force. While the task force was conceived as a county-wide body, none of the fire and police departments from other jurisdictions in the county were included as members.

The primary mission of the Dayton/Montgomery County Task Force was to develop a county-wide arson control plan. This plan was based on the testimony of fire investigators, private citizens, and guest speakers (including, for example, a guest speaker from New Haven to discuss that city's arson early warning system) at six public hearings held throughout the county during June, July, and August 1980.

In August 1980, the task force issued a 17-page report outlining a series of recommendations, in the following order of priority:

- expansion of the Arson Abatement Unit--at the time providing only preliminary investigation services to all but Dayton and Miamisburg--to conduct full arson investigations throughout the county;

- development of a county-wide arson information system;
- development of a public awareness campaign;
- reduction of incentives to commit arson through reform of insurance and banking practices.

These recommendations were developed by subcommittees based on testimony heard, and were unanimously endorsed by task force members. Implementation of the plan fell largely to the personnel in the city's Fire Prevention Bureau (headed by the ACAP project director) who served as staff to the task force.

Although formally disbanded after issuing the plan, the task force re-convened in December 1980 to assess implementation progress. All efforts had been devoted to adding another Dayton police detective and a sheriff's detective trained in arson investigation to the Arson Abatement Unit, so it could function county-wide. The cost of the sheriff's detective was to have been shared by the smaller jurisdictions in the county. Unfortunately, not enough support could be generated for addition of the sheriff's detective; moreover, financial conditions forced the city to withdraw its offer of another police detective. In addition to financial considerations, respondents cited political factors, particularly controversy over expanding Arson Abatement Unit operations to all of Montgomery County, as equally responsible for the failure to reach this goal.

Inclusion of the fire and police departments from Montgomery County might not have won their support for county-wide operation of the Arson Abatement Unit. However, the general point remains: all affected entities and jurisdictions should be included in the arson task force and their support for proposed strategies should be carefully cultivated. This maximizes the chances of enlisting their support and producing a successful program.

Lynchburg, Virginia

Although the ACAP grant was awarded to the City of Lynchburg, that city served only as a focal point of a regional arson control program that served a four-county, primarily rural area involving ten jurisdictions in central Virginia.² A Regional Arson Investigation Squad (RAIS) was formed (see Section 3.2.3) and the Regional Advisory Committee on Arson Control was appointed concurrently to develop policies and procedures governing the

¹ At the time, the Arson Abatement Unit consisted of five Dayton fire investigators, a Dayton police detective, a Miamisburg fire investigator, and a detective trained in arson investigation from the Montgomery County Sheriff's Office, working as a team.

² These counties form the Central Virginia Planning District.

deployment of the RAIS.¹ This advisory committee thus functions as an arson task force for a multi-county area. Advisory committee membership includes the fire marshal for the City of Lynchburg, the sheriffs of the four counties, two police chiefs, a representative of the state police arson division, two Commonwealth Attorneys, a representative from the state volunteer firefighter's association, and representatives from the business and insurance communities. Unlike the RAIS, members of the advisory committee represent their own respective constituencies.

The advisory committee meets quarterly to receive briefings on the activities and caseload of the regional investigation unit. Apart from this, the advisory committee is called on to approve RAIS involvement in cases exceeding five days or requiring a special investigation, such as one involving an auto theft/arson ring operating in the region. While the advisory committee plans to form subcommittees for legislation and public awareness, its primary mission currently is to serve as a supervisory body to the RAIS.

Since observers in Lynchburg indicated that both the RAIS and the advisory committee would have been established without ACAP funding, both groups are expected to continue operating as long as the regional agreement is in force.

Metro-Dade County

The Arson Control Board was established as a subcommittee of the Dade-Miami Criminal Justice Council (implementing agency for the ACAP grant) to act as the official policy-setting body for grant-related activities. Board membership was drawn from the deputy chief level in fire and police departments in the county. The Arson Control Board provided oversight on two major tasks undertaken with ACAP funding.

The first task of the board involved the development of a comprehensive training package on arson detection, investigation, and prosecution that met the needs of fire suppression personnel, fire investigators, police investigators, prosecutors, and insurance agency personnel (primarily adjusters). These curricula were developed under contract and tailored to the specific needs and circumstances of the county.

The second major task of the Arson Control Board was to develop standard operating procedures in arson investigation and prosecution for all police and fire departments in the county. Toward this end, the board undertook a study, based primarily on a survey of fire and police departments, that analyzed investigative manpower, utilization of witnesses, fire scene examination procedures, the division of investigative responsibility between fire and police personnel, the reporting of arson, and evidentiary needs of prosecutors in arson cases. Recommendations were developed in the areas of computer systems and report documentation, deployment of fire and

¹ Both the RAIS and the Advisory Committee were established by formal regional agreements prior to ACAP funding.

police personnel, the division of investigative responsibility between fire and police personnel, mutual aid in investigations, and communications between the prosecutor and investigative personnel.

The training curriculum was adopted in full, and training was delivered to the target audiences. However, the extent to which the board's recommendations on standard operating procedures will be adopted by fire and police chiefs and actually implemented by fire and police investigators is less certain. Respondents noted two possible barriers to implementation. First, as pointed out by a spokesman for the board, members are deputy chiefs whose endorsement of these recommendations does not necessarily represent official department policy. Second, investigative personnel interviewed expressed some concern over the apparent lack of investigator input into the development of standard operating procedures by which they are expected to abide.

Although some of our interview respondents felt that the Arson Control Board would (and should) disband at the end of the ACAP grant period, others believed that it would continue operating, but with emphasis on securing funds for arson control from external sources, the reform of arson laws, and public relations.

San Francisco, California

The San Francisco Arson Task Force was built around an arson strike force, consisting of fire investigators, police inspectors, and an Assistant District Attorney, that had been operating for two years prior to ACAP. The ACAP grant was perceived as an opportunity to institutionalize the Arson Task Force as a city agency, with its own operating policies and budget.

The San Francisco task force was organized into four major units: the Law Enforcement and Prosecution Division (the original strike force); the Related Industries Committee (primarily insurance); the Community Support Committee; and the Public Relations Committee. In order to reflect the respective legal authority of its members, the Law Enforcement and Prosecution Division was headed by the Assistant District Attorney and further divided into a Cause and Origin Section (headed by the lieutenant in charge of the Bureau of Fire Investigation), a Criminal Investigation Section (headed by a senior police inspector), and a Prosecution Section (headed by the Assistant District Attorney). The fire chief was designated as chairman of the task force.

In practice, the various organizational units of the San Francisco Arson Task Force appear to have operated as separate entities. The Law Enforcement and Prosecution Division met on several occasions to discuss policies and procedures relating to investigation and prosecution and the reporting of these activities. Similarly, the Related Industries Committee met several times to discuss public awareness strategies, including an arson hotline, a reward fund, and related publicity. This committee also developed

¹ The Public Relations Committee was never formed because the person who was to have provided no-cost services was unable to fulfill this agreement.

and delivered an arson-for-profit seminar for insurance adjusters in the area. The Community Support Committee was unable to garner sufficient neighborhood group interest and was eventually used as a base for operating a program for juvenile firesetters, funded under a grant from the U.S. Fire Administration.

The San Francisco Arson Task Force was not formally institutionalized as conceived in the grant application, due apparently to the perceptions that this was not necessary for its successful functioning and that such action did not seem to be politically feasible. At present, the three units are functioning--albeit still independently. It is unclear whether these units will continue to operate after the expiration of ACAP funding.

This section has briefly described some of the task forces operating in the ACAP jurisdictions. No attempt has been made to document fully the activities of these task forces or to describe task force efforts in all of the ACAP jurisdictions. Rather, these examples were chosen to motivate the discussion of major issues that would be faced by any local jurisdiction contemplating the formation of an arson task force.

6.2 The Purposes of an Arson Task Force

The examples of the previous section show that a local arson task force can serve many purposes. While there is some overlap, our discussion of these purposes is most usefully organized into four categories:

- coordination;
- problem analysis and planning;
- public awareness; and
- resource acquisition.

Every task force encountered in the ACAP jurisdictions was engaged in activities that served all of these purposes to a greater or lesser degree.

6.2.1 Coordination

The coordination of arson control resources and actions is the primary purpose of a local arson task force. As illustrated throughout this report, coordination is urged among many combinations of public and private sector entities, including:

- fire and police departments in a municipality;
- county prosecutors and fire and police departments

- local, state, and federal authorities;
- public and private fire investigators;
- investigators and municipal officials responsible for code inspection and enforcement, property records, housing and urban development, and social services; and
- city officials (including fire and police) and neighborhood organizations.

The inclusion of representatives from all of these entities enhances the degree to which cooperation and resource coordination can be achieved.

Task forces in many of the ACAP jurisdictions were used as a vehicle for establishing the division of responsibility between fire and police in the investigation of arson, or from another perspective, for the resolution of traditional "turf" disputes between these agencies. We saw this concept of interagency coordination extended across jurisdictions in Lynchburg and Metro-Dade County and in other ACAP jurisdictions. In some cases, a task force was established at the level of department chief to oversee the joint activities of corresponding field personnel. However, as observed in Chapter Four, the private sector, and particularly community groups, while represented on several arson task forces, has not played a significant role in coordinating prevention with enforcement efforts.

An arson task force can also coordinate agency policies governing the arson control efforts in a given jurisdiction or across several jurisdictions. Examples are criteria for sharing case information with private investigators retained by insurance companies and criteria for soliciting state or federal assistance in the investigation of arson cases. Mutual aid agreements for fire investigation were also negotiated between local authorities in some ACAP jurisdictions.

The coordinating role of an arson task force can be extended to systematic analysis of the community's arson problem and arson control with the objective of formulating and continually updating the most appropriate response strategies. This more ambitious notion of a rational planning process is discussed further in the next section.

6.2.2 Problem Analysis and Planning

We argued in Chapter Two that communities should shape their arson control programs based on an analysis of the nature and extent of the arson problem. This analysis should include studies of arson as a part of the overall fire problem, arson motives, and constraints on arson detection. Perceptions of the nature and extent of arson held by various segments of the community (e.g., insurance adjusters, neighborhood organizations, and other public officials) should also be solicited for this analysis.

As a baseline for planning, current arson control efforts should also be analyzed. This analysis should include:

- investigative manpower and equipment;
- prosecutorial capabilities and attitudes toward the prosecution of arson;
- actions taken by the criminal and juvenile justice systems against those accused of arson, the kinds of fires involved, strong and weak points in these systems; and
- the efforts of public agencies, other than fire and police, and private organizations to prevent arson.

A comparison of findings on the nature and extent of arson with those on current arson control efforts should suggest priorities for the allocation of additional resources or for no-cost adjustments in current efforts. In Chapter Seven, we propose a similar planning process for state anti-arson programs.

In order to guide the development of a community's arson control program, a task force should be able to rely on member agencies for assistance in problem analysis. While information on current arson control efforts was available to task forces in most ACAP jurisdictions, the lack of systematic studies on the nature and extent of arson greatly limited these task forces' ability to assess needs.

Task forces in the ACAP jurisdictions did not take a systematic approach to arson control planning. Several interrelated explanations for this are plausible. LEAA required considerable local input into the design of local programs (as observed in Chapter One), and provided a unique opportunity for recipient jurisdictions to begin a cyclical planning process. However, insufficient time was available for the first cycle of the process, the development of ACAP grant applications. Moreover, since it became evident shortly after the ACAP grants were awarded that further federal funding was unlikely, task forces whose creation was prompted by the grant had little incentive to undertake such a planning process once these grants were awarded.

The utility of a systematic needs assessment for the development of responsive arson control strategies also does not seem to have been fully appreciated at the local level. Studies of this type are often viewed as "government red tape" or as being of interest only to academicians and researchers. That such studies might be useful, or even vital, to local officials for developing and monitoring an arson control program appears not to have been given serious consideration in most jurisdictions.

Even if task force members had given systematic analyses higher priority, it is not clear that such analyses would have been feasible in most jurisdictions. Several task force members interviewed felt that public pressure for action would override even the most well-intentioned

attempts to allocate resources for systematic studies. These respondents also felt that such studies were unnecessary in meeting basic investigative manpower, equipment and training needs.

6.2.3 Public Awareness

The creation of an arson task force alone can enhance public awareness of the community's arson problem. The formation of a task force signals official concern about the arson problem. By creating an arson task force, local officials can immediately expose the public to the far-reaching consequences of the problem, such as its impact on property insurance premiums, the cost of public safety services, the tax base, the general appearance of the community, and the disinvestment process in fire-prone neighborhoods.

Most of the media campaigns designed to enhance public awareness of arson and to publicize anti-arson activities were planned under ACAP auspices. Publicity on steps being taken to control arson was expected to serve as a deterrent and to demonstrate how the public could assist in arson control efforts by providing information on suspicious fires to fire or police officials (e.g., through an arson hotline--see Chapter Four). The arson task force also provides a base upon which a political constituency can be built to lobby for the passage of legislation that would facilitate enforcement and prevention efforts, or the allocation of additional resources to fight arson.

6.2.4 Resource Acquisition

The formation of an arson task force should symbolize a community's commitment to control this crime. In this capacity, the task force serves as a medium through which external resources can be channeled to enhance the community's arson control efforts. Possible sources of funds include federal grants such as ACAP, local businesses, and insurance companies.

Local businesses in some ACAP jurisdictions provided services rather than funds. For example, the local media in some jurisdictions provided air time at no charge for public service announcements advertising hotlines and reward funds. Public awareness was also promoted through radio and television interviews with task force members and other local officials involved in arson control. In Dayton, the Director of Public Relations for a local television affiliate volunteered time to chair the arson task force.

Insurance companies also offer both resources and expertise in the fight against arson. As noted earlier, media campaigns, reward programs, and hotlines are frequently funded by insurance companies through arson task forces. Insurance companies have also contributed equipment such as investigation vans and training materials, and have funded the development of training programs and arson information systems. Matching funds for one local ACAP grantee were furnished by an insurance company. Representatives of the Insurance Crime Prevention Institute, which provides investigative services to the insurance industry, have also served on local task forces, sharing their expertise and serving as public/private sector channels of communication.

6.3 Sponsorship, Membership, and Organizational Issues

The definition of a task force cited at the beginning of this chapter refers to "... grouping under one leader" Although they need not remain fixed permanently, membership choices are the first decisions that must be made by the sponsor of an arson task force. This section examines sponsorship, membership, and organizational issues that a prospective sponsor should examine before taking steps to create an arson task force.

6.3.1 Sponsorship

In principle, the sponsor of an arson task force is that agency under whose authority the task force is created. Sponsoring agencies of the ACAP task forces described in Section 6.1 were the Mayor's Office (Baltimore City and San Francisco), the Fire Department (Dayton), the Central Virginia Planning Commission (Lynchburg), and the Miami-Dade Criminal Justice Council (Metro-Dade County). In deciding whether, and how, to form an arson task force, the prospective sponsor should consider the following:

- the nature and extent of arson and perceptions held by key members of the community;
- informal (proclamation) vs. formal (city council resolution, administrative order) action to create a task force;
- existing relationships between persons who would probably be asked to participate;
- other committees, commissions, and boards on which key individuals already sit;
- resource commitments that would have to be made to the task force; and
- political implications of sponsorship.

If an arson task force is already being contemplated, the prospective sponsor's concern has probably been raised through some assessment of the community's arson problem, however informal or unstructured. An analysis of the other considerations listed above would have to be tailored to local circumstances and practice.

¹This need not be based on statistical studies as described in Chapters Two and Five of our report, but should be sufficient to help the prospective sponsor decide whether an arson task force or arson control program is needed at all.

It is valuable for the sponsoring agency to have three general characteristics. First, the task force sponsor should be able to commit the resources demanded of sponsorship. At a minimum, this means staff time to reserve meeting space, prepare meeting agendas, and take meeting minutes; and the costs of duplicating handouts. If the sponsoring agency is the primary source of data for systematic analyses of the arson problem and arson control resources, the resource commitment should also include personnel who are qualified to compile and analyze the data. This would be the case, for example, if the sponsoring agency were the city fire or police department. In virtually all of the ACAP jurisdictions where an arson task force was established, staff of the sponsoring agency served as staff to the task force when needed. (One drawback of this arrangement, however, is reluctance on the part of a task force member to ask for work from staff who are affiliated with another agency.)

A second characteristic of value to a task force sponsor is having the "power of the office" to secure cooperation and action from all sectors of the community and government. In most cities, the mayor's office, the city manager's office or the city council would have this characteristic. This power is needed if the work of the task force is to be of serious consequence. Since the task force is the management, rather than the operational, arm of a community's arson control program, it must either be given formal authority to manage or derive this authority from its sponsor.

This characteristic of an arson task force sponsor was present in principle, though not in practice, in most ACAP jurisdictions. Although there were a few notable exceptions, local task force sponsors did not exercise their power to ensure that task force recommendations were put into practice. This led interview respondents in several jurisdictions to use phrases such as "pie-in-the-sky" and "talk is nice, but..." in describing the task force.

One possible explanation for this finding can be found in the task force's "initiating event." The earliest arson task forces in the country were typically formed in response to a particularly tragic arson fire, a rash of arsons, perhaps concentrated in specific neighborhoods, or a big "bust" involving arson as a form of white collar crime. In one ACAP jurisdiction, the arson task force was established (prior to receipt of the grant) as a result of grand jury hearings on arson-for-profit cases. In contrast to these rather "spontaneous" events, several ACAP jurisdictions formed arson task forces in anticipation, or after award, of the ACAP grant. The ACAP grant solicitation's focus on cooperation and coordination might have led some applicants to believe that the formation of an arson task force was a grant requirement, and thus to propose task forces without ensuring that they would have the power necessary to accomplish their objectives.

This is not to say that task forces formed in response to a federally-funded program will inevitably be figurehead groups with limited power. Moreover, as we will argue later, the opportunity for representatives from the public and private sectors to talk to one another at task force meetings is in itself a significant task force benefit.

The third desirable characteristic of task force sponsors is "political neutrality." While such neutrality can never be achieved in full, it may be

offered by prosecutors' offices in jurisdictions where fire-police relationships are strained. Prosecutors are usually county-level officials while fire and police officials are employed at the city level. This differential in governmental level provides a layer of insulation from intra-jurisdictional "turf" disputes. One of the ACAP jurisdictions where the prosecutor's office was the implementing agency arrived at this arrangement quite by chance, only to discover the benefits of neutrality after the fact.

In sum, the ACAP experience seems to support the belief that ability to commit resources, "power of the office," and political neutrality are desirable attributes of task force sponsors. The mayor's office or city manager's office should, in principle, have all three characteristics. Regardless of sponsoring agency, federal funding alone may be an inadequate stimulus for a local arson task force to be fully effective. The creation of an arson task force may not even be desirable in jurisdictions where key members may be engaged in "turf battles." In these cases, however, the prosecutor's office may provide neutral task force sponsorship.

6.3.2 Membership

Membership of the task force varied enormously from jurisdiction to jurisdiction. Figure 6.1 depicts the membership of all ACAP local task forces. As can be seen from this figure, fire and police chiefs, prosecutors, and insurance industry representatives appear most frequently as task force members, while the local chief executive, local legislators, state agency officials, and local housing representatives appear less frequently.

Represented Entities

The entities represented on a task force can, and probably should, vary greatly from one jurisdiction to the next; there is no prescribed standard for producing an effective working group. The representation of certain agencies, however, is necessitated by virtue of the crucial role these agencies play in the control of arson. The sponsoring agency, for example, should certainly be represented. Fire and police departments, as well as the prosecutor's office are obvious candidates by virtue of their respective responsibilities for fire prevention and the investigation of fire cause, criminal investigation, and law enforcement. As shown in Figure 6.1, these were the most frequently represented entities on ACAP task forces.

Representation of the insurance industry on an arson task force is also usually recommended. One reason, discussed earlier, is that the industry can be a source of funding for certain resources and activities. If arson for profit is believed to be a problem, representation of the insurance industry on the task force would facilitate the coordination of policies governing:

¹ This prosecutor's office was chosen initially as the implementing agency because it had a professional "grantsman" on its staff.

FIGURE 6.1
ARSON TASK FORCE MEMBERSHIP SUMMARY FOR RECIPIENT JURISDICTIONS

	Local												County			State*					
Arson Task Force Members	San Francisco, CA	Dayton, OH**	Milwaukee, WI	Syracuse, NY**	Omaha, NE	Kansas City, MO	Springfield, MO	North Las Vegas, NV**	Norfolk, VA	Lynchburg, VA**	Bolingbrook, IL	Columbus, GA	Salt Lake Co., UT**	Metro-Dade Co., FL**	Snohomish, Co., WA	Hartford, CT	New Haven, CT	Stamford, CT	Annapolis, MD	Baltimore City, MD	Prince Georges Co., MD**
Local Chief Executive (e.g., mayor, city manager)		X																			
Representative from Chief Executive's Office			X		X	X	X								X		X		X		
Local Legislator (e.g., city councilman)			X				X													X	
Fire Chief	X	X	X	X	X	X	X				X	X		X			X				
Police Chief			X	X	X	X	X				X	X		X	X		X	X	X		
Prosecutor			X	X	X	X	X				X	X			X		X	X	X		
Representative from the Insurance Industry	X	X	X	X	X	X	X	X			X	X		X					X	X	X
Representative fro the Banking Industry			X	X		X			X	X				X	X	X	X		X	X	X
Representative from Local Businesses			X			X													X		
Representative from Neighborhood Organizations		X	X		X														X	X	X
State Fire Marshal's Representative					X																
State Police Representative						X															
FBI Representative	X				X			X										X			
ATF Representative		X			X	X															
Local Housing Representative			X	X																	
Others	X	X			X		X										X			X	

* These are the jurisdictions awarded ACAP subgrants that had task forces.
** Multi-jurisdictional.

- the exchange of information between investigative/enforcement authorities and insurance company officials;
- decisions whether to proceed with cases as criminal matters or to have the insurance company defend against fraudulent claims in civil court;
- underwriting and cancellation or non-renewal practices.

In jurisdictions where properties in neighborhoods prone to arson are predominantly insured under the FAIR Plan, representatives from this insurer should also be included on the task force.

In jurisdictions where arson is believed to be connected with neighborhood deterioration and housing abandonment (see Section 4.2), study of the ACAP jurisdictions supports inclusion of the following entities:

- lending institutions, to facilitate efforts to reverse the disinvestment process through the exercise of restraint in the foreclosure of mortgages;
- local tax officials, for assistance on foreclosures on tax delinquent structures;
- locally-based officials from the U.S. Department of Housing and Urban Development, to help prevent arson-related abuse of federal housing programs;
- code inspection and enforcement agencies, for assistance in the identification of high-risk properties;
- local agencies responsible for securing or demolishing vacant unsafe buildings, to coordinate priorities and operations with fire and police departments;
- neighborhood organizations, to hear their concerns and suggestions on arson control strategies, and to utilize their services in the identification of high-risk properties and the abatement of arson risks; and
- urban development agencies, to identify long-range property development plans that may prompt arson for profit.

Some local arson task forces have also included state and federal authorities as members to provide for the coordination of multi-jurisdictional investigations. Officials representing the Federal Bureau of Investigation, Bureau of Alcohol, Tobacco and Firearms, Internal Revenue Service, and the Postal Service were among the participants from federal agencies.

In communities in which juveniles are believed to be responsible for a significant portion of the arson problem, the inclusion of school and recreation department officials is advisable for the coordination of fire safety/arson prevention programs directed at this population. Representatives from social service agencies may also contribute to the task force in these cases. If older juveniles are believed responsible for setting fires (perhaps for pay), stronger sanctions by the juvenile justice system may be desired. In these instances, representatives from the juvenile court and other juvenile justice agencies should be considered for membership.

The interests represented on a local arson task force need not be fixed once the task force is initially formed. As we saw in the case of Baltimore City, agencies can be invited to participate as the need arises. As a general rule, sponsors should have a reasonable idea of how prospective members can contribute to task force purposes and should try to include representatives from all entities and jurisdictions affected by the work of the task force.

Members' Ranks or Positions

The question of the rank or position of entities' representatives on a task force is in many ways more difficult than that of the entities that should be represented. Some argue that only top level administrators should be included if a task force is to deal with matters of policy. Moreover, proponents of this argument believe that, apart from the sponsoring agency, the "force of the office" is needed for task force members to be able to debate issues meaningfully, make significant decisions, and take decisive action.

One counterargument to this thesis, which draws some support from the ACAP experience, is that top level officials have many commitments outside their normal administrative responsibilities. The probability that these officials will attend regular arson task force meetings, according to this view, would be quite low unless they have strong personal interests in arson control. Attendance at meetings would either be poor or subordinates would be sent to represent official members.

A second argument against top level membership on a task force is that the interest and the expertise in arson control reside primarily at mid-management levels. In a fire department, this might be a fire marshal or the head of the fire prevention bureau. In a police department, it would probably be the lieutenant or captain in charge of a detective unit. A trial attorney trained in arson prosecution, according to this view, is almost certain to have more expertise in arson prosecution than is the chief district attorney, state's attorney or county prosecutor, who is typically an elected official. One possible problem with this argument is that mid-management personnel in fire and

¹The "typical" task force membership cited by the U.S. Fire Administration seems to reflect this position.

²Of course, it is also possible that a top level fire or police official may require approval from the mayor or city council for some actions.

police departments may over-emphasize enforcement needs relative to prevention needs. As more visible public figures, top-level administrators in these agencies may give greater consideration and attention to prevention efforts.

Mayors, city managers, and "city hall" staff were largely absent from local arson task forces in ACAP jurisdictions. According to interview respondents in these jurisdictions, task force leadership was delegated by the local chief executive to the agency believed to be closest to the problem-- typically the fire department.

In the final analysis, it is not at all clear whether a task force whose membership is drawn from top level officials would be more effective than one whose membership is taken from lower levels. As is often the case with programs such as this, effectiveness may well be more a function of personalities than institutions. In fact, the presence of a "driving force" in a position of authority, as in some of the task forces noted earlier that were formed in reaction to a particularly serious arson or series of arsons, might be the most important ingredient for an effective task force.

6.3.3 Organization

While some of the arson task forces in the ACAP jurisdictions consisted of only a few members, some were too large to work as a full group on all activities. If nothing else, it is difficult to convene a large group to solicit every member's views on every detail of every proposal. These task forces utilized two techniques to overcome the problem of size.

One approach used in ACAP jurisdictions was to organize the task force into subcommittees. Insurance, public awareness, juvenile, and legislative subcommittees were found most frequently among the ACAP task forces. Information system subcommittees were established in a few task forces. A second technique could either supplement the subcommittee approach or be used independently of it. This technique involves the appointment of a steering committee that develops an agenda for the full task force to discuss at meetings. The steering committee can either consist of subcommittee chairmen or others on the task force. In cases where a task force is involved in day-to-day decisions, a steering committee could serve this purpose.

As with questions of sponsorship and membership, the organizational arrangements of an arson task force need to be tailored to local circumstances in order to be effective.

6.4 Summary and Conclusions

An arson task force can serve a number of purposes in designing and implementing an effective anti-arson program. These may be summarized as follows:

- Coordination. Anti-arson efforts require the cooperation of numerous agencies, organizations and individuals. The arson task force can facilitate coordination among fire and police departments; prosecutors' offices; insurance companies; local, state, and federal authorities; municipal authorities responsible for housing code inspection and enforcement, property records, and the like; and neighborhood organizations.
- Problem analysis and planning. The arson task force may be helpful in ensuring that a systematic analysis of the nature and extent of the arson problem is conducted. It may also sponsor an examination of current arson control efforts as a baseline for planning.
- Public awareness. The creation of an arson task force and associated public awareness activities can serve as a deterrent to arson, assist in arson enforcement activities by providing information on suspicious fires, and help build a constituency for anti-arson legislative efforts and/or additional resources.
- Resource acquisition. The arson task force can serve as a medium through which external resources can be channeled to enhance the community's arson control efforts. Possible sources of funds include federal grants, local businesses, and insurance companies.

In deciding how to organize a community's task force a number of factors must be considered. One of these is formalization. None of the task forces we visited were formally authorized by city or county council resolution or executive order. In some cases, creation of the task force was formally announced to the media, but in most, letters were simply sent to request the participation of designated members.

The informal nature of the ACAP task forces appears to have been partly due to the assumption that they would have a limited life span. This was true particularly in those jurisdictions where the task force had a specific goal to accomplish or where it was established as a supervisory body to oversee the ACAP grant. A second reason that task forces did not operate under formal procedures relates to the kinds of decisions they were called upon to make. Few of these decisions involved the actual expenditure of funds, except where ACAP grant funds were shifted from one category to another and required task force approval. If an arson task force were to undertake a longer-term approach to problem analysis and specific resource allocation as recommended previously, it should probably be structured and operated on a more formal basis. Voting members should be clearly identified, a quorum established, and procedural rules adopted.

Another issue to be considered in forming an arson task force is sponsorship, i.e., under whose authority should the task force be created and operated? Among the ACAP jurisdictions, sponsoring agencies included mayor's offices, fire departments, local planning commissions, and criminal justice

councils. In determining which agency should sponsor the arson task force, at least three criteria should be taken into account:

- the ability of the agency to commit the resources demanded of sponsorship;
- the "power of the office" to secure cooperation and action from all sectors of the community and government; and
- the "political neutrality" of the agency.

A third issue which must be addressed in forming an arson task force is the body's membership. Clearly, the sponsoring agency, the fire and police departments, and the prosecutor's office should be included. Representation of the insurance industry is also recommended to facilitate private-public coordination. In jurisdictions where arson is believed to be connected with neighborhood deterioration and housing abandonment, municipal agencies with responsibilities for property code enforcement, taxation, housing, and urban development; lending institutions; and neighborhood organizations may be added. Other entities represented might include state, county, and federal authorities. In general the membership should include representatives from all affected agencies and jurisdictions.

Members' ranks or positions should also be considered. Some argue that only top level administrators should be included if a task force is to deal with matters of policy, since only such administrators are empowered to make significant decisions involving the commitment of personnel or other resources. One counterargument, which draws some support from our examination of the ACAP jurisdictions, is that top level officials often have little time to attend task force meetings with any regularity. A second counterargument is that interest and expertise in arson control matters reside primarily at mid-management levels. In the final analysis, the presence of a "driving force" in position of authority may be the most important ingredient for an effective arson task force.

A final consideration in developing an arson task force is its organization. A common approach in the ACAP jurisdictions was to organize the task force into subcommittees dealing with such topics as insurance, public awareness, juvenile arson, and legislation. A second approach which was not employed in the ACAP sites would be to appoint a steering committee to develop agendas and specific proposals for full task force meetings.

CHAPTER SEVEN

THE ROLE OF THE STATE IN ARSON PREVENTION AND CONTROL

Arson is a local problem; it devastates the physical environment as well as the social fabric of communities. As such, it may be argued that the first line of attack against arson must fall to local authorities. However, there is an important role for state government to play by supporting local efforts and providing statewide coordination. LEAA's realization of this fact is reflected in its award of Arson Control Assistance Program (ACAP) grants to eight states.

In this chapter, the actions taken by state government in the states awarded ACAP grants are described and analyzed. The focus is on the four state projects visited--Connecticut, Massachusetts, Rhode Island, and New Jersey--but the experiences of the other four state grantees--Florida, Illinois, Delaware, and Maryland are also examined as appropriate.

The objective of this chapter is to highlight state-level arson control strategies which appear to be successful and the reasons for their success. Throughout, the emphasis is on coordinating and supporting functions. The chapter discusses the following major areas of state activity:

- legislation and regulations;
- analysis of local needs and capabilities;
- investigation;
- prosecution;
- technical assistance and training; and
- general leadership.

Throughout this discussion, the reader should bear in mind that state constitutions, laws, governmental structures, and political climates vary considerably across the country. Thus, a strategy that is possible in one state may be politically impractical or inconsistent with the laws in another. The discussion is not intended to offer a prescription for state arson control efforts but rather a range of options in a variety of areas of activity. The discussion begins with an assessment of key components of state and local coordination in arson reporting, investigation, and prosecution.

7.1 Key Components of State and Local Coordination: Arson Reporting, Investigation, and Prosecution

Based on our observations of the ACAP state projects, we believe that the most effective state anti-arson program is composed of a number of

interrelated elements. In this section, we discuss the major components of state activity in fire and arson reporting, investigation, and prosecution. Certain key elements--for example, state authority to investigate fires, local requirements to report fires to the state, statewide fire/arson data systems, local and state investigative and prosecutorial capabilities and their deployment--are interdependent. The interrelationships of the major elements of state/local coordination are depicted in Figure 7.1. One key component consists of the statutes and regulations which authorize state arson investigative assistance to localities. Another important element is a centralized statewide reporting system in which local authorities report fire incidents to a designated state agency--most likely the state fire marshal--in accordance with clear and precise instructions promulgated by the state. These reports, which would include a categorization of fires by cause and origin, would form the basis of a statewide data system on fire and arson. A system of this type would be primarily an incident information system. The NFIRS system, an incident system discussed in detail in Chapter Five, is recommended for all states. Indeed, most states already participate in NFIRS to some extent.

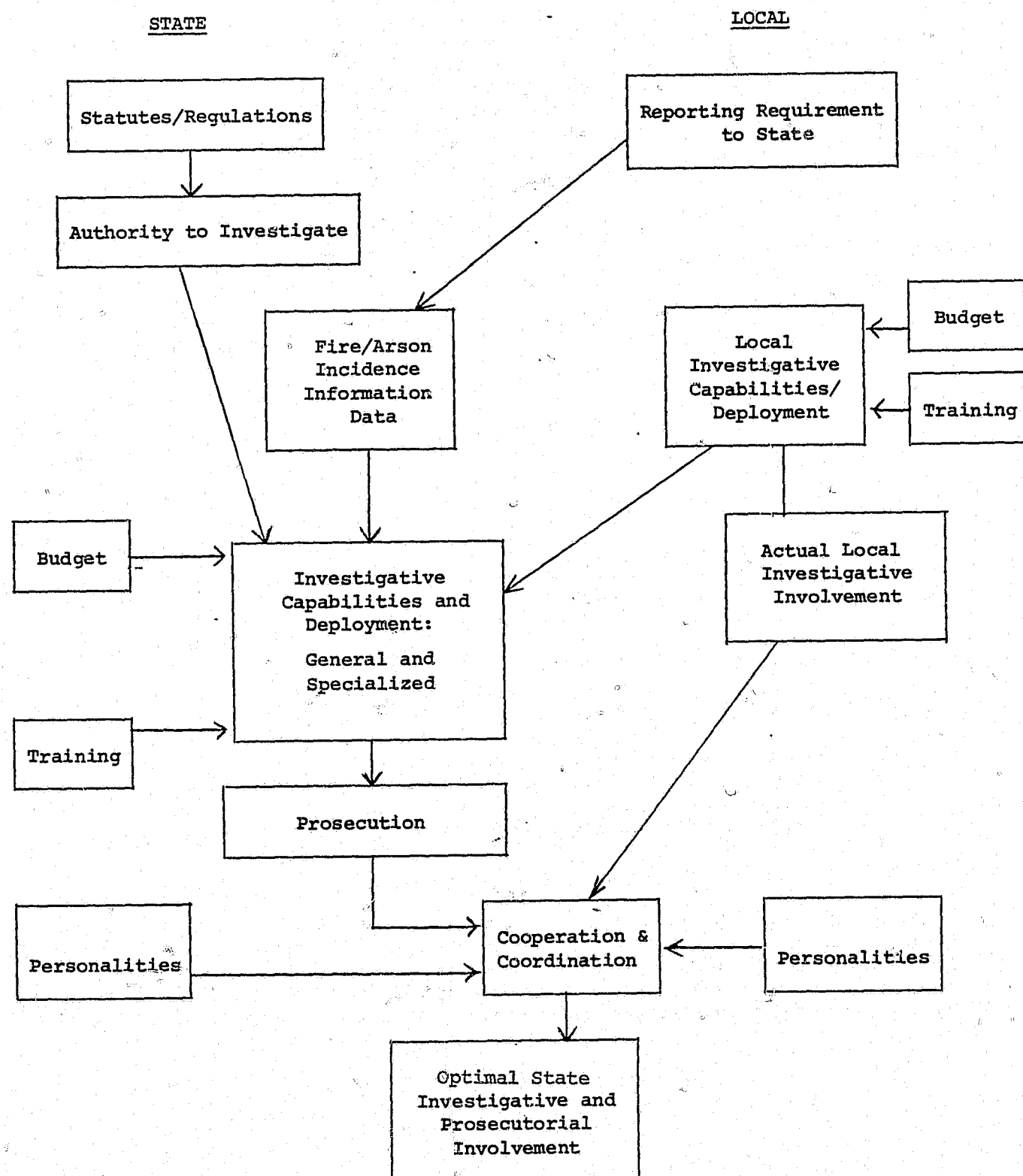
Given the two conditions discussed above--statutory authority and a centralized reporting system--the following five steps should aid in achieving maximum state-level coordination:

- determining the extent and patterns of arson incidence statewide;
- evaluating local arson investigative capabilities statewide;
- identifying, based on the first two steps, the localities most in need of state investigative assistance or additional local resources and the types of assistance or resources needed;
- targetting available state resources to provide general investigative assistance where it is most needed; and
- in conjunction with the identification and allocation processes outlined in the preceding steps, offering certain specialized services such as "paper chase," fire pattern analysis, and accountant services on an as-needed basis statewide.

Implementation of such a strategy might suggest the transfer of state resources from rural to urban areas, or any number of rearrangements in resource allocation. Of course, the decision to make such changes and the process of implementing any such reallocations or resource transfers must be a joint undertaking between the state and local authorities concerned.

Figure 7.1

Key Components of State and Local Coordination



Obviously, many factors affect the degree of success achieved under an integrated approach of this nature. Budgetary considerations at both state and local levels may prevent development of necessary investigative and prosecutorial capabilities even if the data demonstrate the need for them. The need to offer salaries adequate to attract qualified investigators is an issue; however, the quality of training and the availability of qualified personnel may pose problems even if funds are available to hire the required staff. Personality conflicts and "turf" disputes may also undermine both intra- and inter-level coordination.

Our visits to ACAP-funded state projects revealed differing levels of success in implementing the major components of state and local coordination. In the following sections, we discuss key elements for success and the strengths and weaknesses of various state approaches to them.

7.2 Legislation and Regulations

As noted in the discussion of the elements of state and local coordination, it is important that the legislative and regulatory framework encompass both the provisions that are most effective for arson control at any level of government, and the specific authorization necessary for state involvement in what is essentially a local problem. The latter element clearly requires state legislative action, as do most of the other provisions relevant to arson control initiatives. Housing and building codes may be embodied in local ordinances, although many states--including New Jersey--also have state housing codes and state enforcement processes.

An examination of laws and regulations in all areas which bear upon arson prevention and control will allow each state to determine how well its laws meet its needs. In some states this assessment has been carried out by the state arson task force and a package of legislative proposals has been included in the master plan for arson control developed by the task force.

A few ACAP states have taken steps beyond the publication of legislative proposals. In Connecticut, for example, the state criminal justice planning agency, which is also the locus of the ACAP project, has submitted an arson package to the legislature and is actively involved in lobbying for its passage. Other states, such as New Jersey and Maryland, also expect to develop and present arson legislative packages.

Legislative and regulatory packages should address both criminal and civil proceedings. It is also important that procedural as well as substantive aspects of the law be analyzed for possible improvement. One document that might prove helpful in this regard has been published by the Insurance Committee for Arson Control. It contains a discussion of arson legislative initiatives and the arguments for and against each. Furthermore, this document contains summaries of the status of major types of legislation--such as arson reporting-immunity laws--in every state.

¹ Insurance Committee for Arson Control, Current Arson Issues: A Position Paper (n.d.).

One of the key components of a legislative package designed to combat arson is the statute defining the crime and providing a penalty structure. Drawing on "model" laws published by the National Board of Fire Underwriters (1941), the American Law Institute (part of a model penal code, 1960), and jointly by the American Insurance Association, the National Association of Independent Insurers, and the Property Loss Research Bureau (1978), many states have broadened the definition of arson beyond the common law definition of "malicious burning of the dwelling of another." To address effectively the broadest range of arson cases (including arson for profit), it is important that:

- the law covers burning one's own, as well as someone else's property;
- the law covers burning property other than a dwelling; and
- the law covers hiring a "torch" to set a fire as well as setting a fire yourself.

Most state arson statutes now outlaw malicious burning of all buildings, whether one's own property or that "of another." Prohibitions against the burning of one's own property can be either explicit or implicit (e.g., using the words "any" property/building). States have also added provisions dealing explicitly with insurance fraud (or, more generally, fraud arson) and burning of personal property including vehicles. These laws are often quite complex in their wording because of the need to provide an escape clause to cover deliberate burning of property in furtherance of a reasonable non-fraudulent demolition scheme which causes no threat to human life or to the property of others. In such provisos, the key wording often allows an affirmative defense on the ground that the fire was set for "a lawful and proper purpose."

A unique approach to combatting arson for profit is included in California's arson law. According to a 1977 amendment, any person convicted of arson "committed for pecuniary gain" may, "in addition to the penalty prescribed," be fined "twice the anticipated or actual gross gain."¹ Although it may be difficult to establish the motive of pecuniary gain and the amount of "anticipated or actual" gain, this provision appears to represent an innovative and potentially fruitful approach to taking the profit out of arson for profit, as well as punishing the offender through other criminal sanctions.

In addition to the penal statutes governing arson, other laws and regulations may have significant consequences for the success of anti-arson initiatives. Although some of these subjects have been discussed in various other sections of the report, we have summarized some of the relevant key issues below.

¹California Penal Code, Section 456.

- Fire and Arson Reporting - Requirements that local fire departments and/or insurance companies report all or certain categories of fires/losses to state authorities for use in data compilations and for the purpose of requesting investigative assistance. Issues: timing of reports; categories of fires to be reported; use of reporting compliance; access to PIR name inquiries; use of PIR forms in insurance company reporting.
- Reporting - Immunity Laws - Laws designed to facilitate provision of information on coverage and claims by insurance companies to investigators and prosecutors. Such laws have been passed in 44 states. Issues: persons authorized to request and receive information; persons to provide information--e.g., are agents, adjusters, and brokers included?; reciprocity--i.e., does law obligate government to share information with insurance companies? extent of immunity--i.e., civil and criminal? limited or complete? provision of information before a fire--e.g., when authorities suspect that a fire will occur.
- Landlord Disclosure - An innovation only adopted by a few states thus far. Requires landlords to disclose upon written request of tenants, lawful occupants, code or other law enforcement officials, information on the building's insurance coverage. Issues: procedures for obtaining the information and verifying its accuracy.
- FAIR Plan and voluntary market insurance regulation - This covers a myriad of regulatory areas, but the major subjects relevant to arson prevention are:
 - underwriting: right to cancel/deny coverage on, e.g., vacant or fire-damaged buildings, buildings in tax arrears, or properties in which policy premiums have not been paid;
 - cancellation notice period: some states have lowered this period to five days for FAIR Plan policyholders;
 - inspection: before issuance of policy and/or periodically thereafter;
 - application procedures: applications required prior to issuance of policy: inclusion of corporate/ownership information; "two-tiered" application to identify high-risk properties;
 - claims/settlements: basis of determining amount of loss--e.g., fair market value, replacement value, "broad evidence rule";

Issues: a major issue in adopting regulations which give insurance companies increased power to deny claims, cancel policies, or make it more difficult to obtain insurance is that such regulations can be portrayed as anti-consumer in orientation. Indeed, Illinois has recently enacted a law providing privacy protection to insurance consumers.

- Regulation of Public Adjusters - Common provisions include licensing requirements and prohibition of soliciting business at the fire scene or within a certain period after the fire has occurred;
- Liens - These provisions generally enable municipalities to place liens on burned buildings for back taxes and demolition costs. Some states have proposed allowing liens for costs of extinguishing the fire and for back water and sewer bills.
- Legal Procedures - Administrative warrants, investigative subpoenas, wiretapping, and grants of immunity. Issues: conformity of laws authorizing state investigation of fires with the requirements of Michigan v. Tyler-Tompkins.

An additional aspect of legislative or regulatory reform relates to provisions authorizing state assistance to localities faced with an arson problem. Legislation and policies defining the state role in investigation or prosecution are more effective if they specify the procedures to be followed and the division of responsibility when a local jurisdiction requests state assistance as well as when action is initiated at the state level. More precisely, if there are any circumstances in which it is the obligation of the state to take direct action, these should be carefully delineated. When the involvement of the state is in a supplemental or advisory capacity to a locality, the chain of command and the roles and duties of personnel from state and local agencies ought to be precisely defined and articulated. Specific legislative and procedural options will be discussed in detail in the subsequent sections on the state role in investigation and prosecution.

7.3 Analysis of Statewide Arson Patterns and Local Investigative Capabilities

As noted above, arson is fundamentally a local problem. Thus, local officials have primary responsibility for arson control efforts. On the other hand, states can supplement local activities in a variety of ways. To achieve the most effective focussing of state resources, it is important to be aware

of: (1) the nature and extent of the fire and arson problem in each of the jurisdictions within the state, and (2) the capabilities of local officials to respond to their arson problem. In the following sections we discuss these two aspects of the needs assessment process.

7.3.1 Requirements for Local Reporting

Analysis of the nature of the local arson problem in each jurisdiction can best be carried out in conjunction with accurate and timely fire and arson reporting by local authorities. As depicted in Figure 7.1, reporting serves two basic purposes. First, it is the means by which local authorities assess their arson problem and determine the need for assistance from the state. Thus, it may serve to trigger requests for help from the local communities. Second, it allows state staff to allocate state resources wisely, based on an accurate assessment of statewide arson patterns.

In order for a system of local reporting to serve both of these purposes, the types of fires reported and the timing of reports should be consistent throughout the state. The eight ACAP states vary considerably in their requirements for local reporting, as illustrated in Table 7.1. Five of the states--Massachusetts, Connecticut, Rhode Island, Illinois, and Maryland--require that all fires be reported to the state fire marshal, but they differ substantially on the timing of these reports, with requirements ranging from 48 hours in Massachusetts to Illinois' provision that reports occur by the fifteenth day of the month following the fire. In both of these states there is an additional requirement regarding the reporting of special categories of fires. Rhode Island requires reporting of incendiary, suspicious, and fatal fires. Massachusetts has implemented a more stringent requirement for special categories of fires by mandating that all fires of suspicious, incendiary, or undetermined origin be reported immediately to the state fire marshal.

In three of the eight states--New Jersey, Delaware, and Florida--there is no mandatory system of reporting, and state authorities must rely on reports submitted voluntarily, even though in at least one of these states there exists legal authority for the fire marshal to institute mandatory reporting. The situation in New Jersey is somewhat unique in that there is an understanding that the general powers of the county prosecutors as chief law enforcement officers in the counties² include the power to require that fires be reported. However, the scope and details of this requirement are left entirely to the discretion of the county prosecutor. In practice, the requirements instituted by prosecutors vary significantly from county to county. Some prosecutors designate categories of fires which must be reported, some require reports only from career fire departments, and still others have instituted no mandatory reporting. Although New Jersey is in the midst of establishing an incident information data system based on NFIRS, the tradition of local

¹Florida Statutes, 633.03.

²New Jersey Statutes Annotated, 2A:158-1.

¹Mary Fairchild, "Select Arson Laws in the States" (paper included in materials distributed at National Legislative Conference on Arson, Columbus, Ohio, December 1980): pp. 35-38.

Table 7.1
Statewide Reporting Requirements

STATE	TYPE OF FIRE	TIMING OF REPORT	INSURANCE INDUSTRY REPORTING OBLIGATIONS
Connecticut	• All fires	• Within 10 days	• Have been asked to submit copy of PILR report on a voluntary basis.
Delaware	• No statutory reporting requirement. Fire departments voluntarily submit NFIRS reports.		• Companies must report "other than accidental" fires with damage over \$5000 to "authorized agency." Companies must report claims settlements within 30 days to state fire commission.
Florida	• Although the state fire marshal has the authority to demand incident reports, this provision is not enforced. NFIRS reports are submitted voluntarily by some departments.		• Immunity law requires reporting of suspicious fires to state fire marshal. When it becomes operative PILR form will satisfy requirement.
Illinois	• All fires (cause and origin determination)	• By 15th of the month following incident	• Immunity law covers pre-fire reporting of potential losses and post-fire reporting of other than accidental fires to the state fire marshal.
Maryland	• All fires	• With 10 days	• Must report fire losses to state fire marshal within 10 days of claim adjustment. PILR form satisfies this requirement.
Massachusetts	• All fires • All fires of incendiary, suspicious or undetermined origin	• Within 48 hours • Immediately	• Must submit a copy of the PILR report on all losses over \$1,000.
New Jersey	• No mandatory reporting requirement. Timing and content of reports at the discretion of the county prosecutor.		• Required to report to county prosecutor fires believed to be "other than accidental"
Rhode Island	• All fires • All suspicious, incendiary, and fatal fires	• Within the 1st 10 days of the month following the month in which the fire occurred • According to procedures established by state fire marshal	• Immunity law requires company to report "other than accidental" fires to state fire marshal.

control or "home rule" is so strong that a decision has been made to retain the voluntary system of reporting.

An additional aspect of mandatory reporting of fires concerns the obligations placed on insurance companies. As Table 7.1 indicates, several states have implemented laws designed to bring about further investigation of fires by requiring reports from the insurance industry. Provisions governing reporting of this nature show variations similar to those discussed in relation to local reporting requirements. The law in Massachusetts places the insurance industry under a strict obligation to submit to the State Fire Marshal a copy of the Property Insurance Loss Register (PILR) report on all losses over \$1,000. In New Jersey, the county prosecutor is the recipient of insurance reports as well as local fire reports. As a result of a recently enacted immunity law, insurance companies must report all fires that they have reason to believe are "other than accidental." It is then up to the county prosecutor to notify the appropriate investigative agencies.

As discussed in Chapter Five, the NFIRS system facilitates analysis of fire incident information to provide a statewide assessment of the arson problem. Table 7.2 illustrates the status of NFIRS in the eight ACAP states. It is important to point out, however, that the mere existence of a reporting system or reporting requirement does not produce an immediate capability for statewide arson analysis. As noted in Chapter Five, NFIRS may become operational in stages, thus delaying the availability of statewide data until all departments are participating. Moreover, there are two types of reporting problems observed to a greater or lesser degree in all ACAP states:

- there may not be full compliance with existing requirements to report all fires; and
- the accuracy of local data may be questionable.

Each of these problems can impede the ability of the state to develop an accurate profile of the arson problem in the state. Furthermore, they can lead to inappropriate allocation of resources if not detected, therefore compounding the seriousness of any reporting errors. Both problems and possible state responses are discussed below.

Compliance

Available data from a few states reveal a range of levels of compliance in NFIRS reporting of from 19 percent of the career departments in Florida (where NFIRS implementation is ongoing) to 71 percent of all fire departments in Connecticut. In New Jersey, the two pilot counties have estimated reporting rates of 80-85 percent, and officials anticipate a 60 percent initial reporting rate as new counties are introduced to the system.

An important note of caution, however, is that measuring compliance by the number of departments reporting may not accurately reflect the percentage of total fires reported, i.e., if only small departments are complying with reporting requirements, the percentage of compliance may be high, but a much

Table 7.2
Statewide Fire Information Systems

STATE	NFIRS OPERATIONAL	IMPLEMENTATION OF NFIRS IN PROGRESS
Connecticut	X	
Delaware	X	
Florida		a
Illinois		b
Maryland	X	
Massachusetts		c
New Jersey		d
Rhode Island	X	

^aIn Florida, no volunteer departments are participating in NFIRS.

^bFull participation in Illinois is scheduled for 1981.

^cFull implementation is scheduled for January 1982. As of December 1980, personnel from 95 cities and towns had been trained in NFIRS and 62 were submitting reports.

^dAlthough NFIRS is being implemented in pilot counties, reporting remains voluntary.

smaller percentage of total fires may be represented. In Florida, although none of the 500 volunteer departments in the state are participating in NFIRS, officials hope to enlist 350 of the 740 paid departments and thereby obtain data on approximately 90 percent of the fires in the state.

The problems of obtaining incident reports from volunteer fire companies are long-standing and are not likely to be easily resolved, as the volunteers may not have the resources or support services to provide routine reports.

There are a number of possible explanations for low compliance in reporting that may apply to both volunteer and paid departments. One stems from "turf" issues in which local autonomy conflicts with state intervention. Local authorities may be suspicious of state authorities. They may jealously guard their power for fear of its being usurped. Reporting anything to the state is often seen as the first step in state usurpation of local functions. A second factor is that the members of the department assigned to prepare the reports, as well as many of the others in the department, may not consider the task to be of high priority. They may feel that fire suppression, scene overhaul, and quick return of equipment to headquarters are much more important than report preparation. A final explanation for the reporting problems may be that there is often a lack of feedback on reports. A major problem is that many local fire officials do not see any benefit to their department in making reports to the state.

States may employ a number of devices to counter these factors. States may provide tabulation and analysis to localities of the data they submit. Such reports may be of real value in the planning of local anti-arson programs. The state can attempt to communicate to local officials the benefits of complete and accurate reporting to all levels of government. Furthermore, the state can boost compliance by providing training on the reporting procedures to be followed.

Accuracy

A reporting compliance level of 100 percent of all departments will not, by itself, permit a meaningful analysis of statewide arson patterns; there must be a reasonable belief in the accuracy of the data as well. The data should be reliable in the number of incidents reported and in the details of each incident. In one ACAP state, there is a law mandating that all fires be reported to the state fire marshal within 48 hours of their occurrence. However, the state fire marshal's statistics are based solely on the reports received. As a result, the marshal's figures often differ from local counts. Table 7.3 compares the fire marshal's 1979 building fire figures for twelve randomly selected cities and towns to figures provided by the local fire departments in telephone conversations with Abt Associates staff. In those jurisdictions that complied with the law, the percent of fires reported to the fire marshal range from four percent (City/Town D) to 80 percent (City/Town A). Four of the cities and towns surveyed failed to report any fires.

Table 7.3

Building Fire Incidence Reporting in Twelve Cities and Towns
in an ACAP State, 1979

<u>City/Town</u>	<u>State Fire Marshal's Figures based on Local Reports</u>	<u>Fire Department Figures Provided to Abt Associates</u>
A	8	10
B	0	20
C	0	13
D	3	73
E	0	34
F	0	172
G	11	86
H	7	39
I	18	77
J	24	273
K	1	10
L	<u>23</u>	<u>35</u>
TOTALS	<u>95</u>	<u>842</u>

In addition to the accuracy of the number of fires reported, a key concern in analyzing arson patterns involves the accuracy of the reported determination of cause. As discussed in Chapter Two, the detection of arson is a difficult and often subjective process. Even departments with the best intentions regarding reporting can only report incendiary or suspicious fires that they detect. Furthermore, there are disincentives to categorizing fires as incendiary or suspicious, since involvement in legal action or court appearances may result. Options available to states to improve the accuracy of reporting include training, education, and periodic monitoring of reports received.

In sum, jurisdictions appear to achieve greater success in analyzing statewide arson patterns when the reporting requirements are clearly specified and bear a close relationship to recognized goals. An additional key to success is a sense of the importance and value of reporting on the part of the local officials who must do the reporting.

7.3.2 Assessing Local Capabilities and Resources

Assuming an accurate assessment of the nature and extent of the fire and arson problem statewide, the next step in determining state priorities is to understand the capabilities of local communities in dealing with their arson problems. As noted in Chapter Three, investigation is perhaps the most critical step in arson control. Yet local capabilities in the area of fire investigation may vary dramatically from community to community.

Most cities maintain some full-time fire investigative staff, although the size and quality of these units may vary considerably. In some cases, the arson squad is relatively inexperienced in fire cause determination; in others, there are highly skilled arson units. On the other hand, rural areas often lack fire investigation staff. Most of these areas are served by volunteer fire departments and neither need nor can afford full-time units. Similarly, the prosecutor's office in many rural jurisdictions may employ at most two or three attorneys and may even consist of a single, part-time position. In these circumstances, the local prosecutor does not have the resources to fill in any gaps in local investigative capabilities. Moreover, the prosecutor may also need supplemental resources or assistance.

In conducting the statewide review of local capabilities and resources, the state must take into consideration all of these variables in both the investigative and prosecutorial systems. It is important that a thorough assessment of the local context and the mix of available resources be incorporated into the state's response.

Two of the eight ACAP state grantees provide examples of this process, as they had recently conducted a survey of local fire investigation capabilities and utilized it to plan state initiatives. In Rhode Island, one of the states which conducted a survey, an unusual contextual factor was used to strengthen local-state coordination. All prosecutions in Rhode Island are

handled by the Attorney General, as there are no local prosecutors. Recognizing the need for coordination between local investigators and state prosecutors, the Attorney General's Office surveyed all cities and towns to identify a liaison in every fire department. These liaisons then became responsible for facilitating incident reporting and coordinating investigation with the offices of the state fire marshal and the Attorney General.

In Connecticut, a survey of local fire department investigative capabilities conducted by the state fire marshal identified a need for additional training. Every fire department in Connecticut--whether volunteer or paid--is required to have a fire marshal who is responsible for establishing the cause and origin of all fires. The state course required for certification as a fire marshal includes only three hours of instruction on cause and origin determination. As a result of the survey, which revealed a general lack of investigative experience and knowledge, and ACAP-fostered cooperation between the Commission on Fire Prevention and Control (the agency offering ACAP-funded training) and the state fire marshal (who is charged with administering the local fire marshal certification course), substantially more attention to cause and origin determination is being incorporated into a revised certification course.

In structuring its ACAP project and selecting five localities for funding as demonstration sites, the state of Connecticut considered both the arson problem and the investigative capabilities of localities. These jurisdictions were chosen not only because they all lie within Connecticut's urban corridor and have serious arson problems, but also because they have varying capabilities for dealing with the problem, ranging from New Haven's sophisticated Arson Warning and Prevention System (AWPS) to Enfield's reliance on the fire marshals from volunteer departments.

7.3.3 Synthesizing Statewide Needs Assessment and Optional State Responses

As discussed in the preceding sections, a thorough statewide assessment of the arson problem should include an examination both of the frequency of arson in each locality and of the availability of local resources with which to combat arson. The frequency of arson can be seen as an indication of the degree of need for resources. The role of the state can then be to compare the degree of need with the level of existing local resources and develop a plan to respond to unmet needs. As state resources are not unlimited, it is important that the plan identify the types of resources best suited to various patterns of need. A key component of this process involves the differentiation of circumstances in which direct state participation in line activities is justified, and those in which the state's role is to provide specialized services to supplement local capabilities.

The development of a state strategy for resource allocation can be depicted using the approach in Table 7.4. Using the statewide assessment, each jurisdiction can be ranked as high or low on two dimensions: the level of need (i.e., the extent of the arson problem), and the extent of local investigative

Table 7.4

State Response Options by Type of Local Need and Capability

		LEVEL OF LOCAL CAPABILITY	
		HIGH	LOW
LEVEL OF LOCAL NEED	HIGH	No need for direct state involvement. Possible need for occasional specialized services such as training to ensure retention of high capability.	State may assist in developing local capability. Unlikely that state resources sufficient to directly address high need for lengthy period of time.
	LOW	Unlikely situation, but in the event it did arise, state could facilitate regionalization of resources or networking if surrounding areas had high need but low capability.	Direct state involvement may be justified if low need reflects infrequency of arson in rural areas. An alternative to direct intervention would be for state to assist several localities in developing regionalized resources.

capabilities. Each of the four cells in the resulting matrix calls for a different type of state response. This model is applicable both to investigative and to prosecutorial resource allocation decisions.

Although the type of local need and the range of local capabilities are major factors in defining the state's role, the capabilities and resources of the state itself are likely to influence the state's decision as well. If the state has a sizeable staff, the tendency will likely be towards providing direct case-level involvement to a number of localities. On the other hand, if state resources are tightly constrained, direct involvement becomes less feasible except in highly specialized or unique circumstances. A pattern such as this necessitates reliance on skills in technical assistance or training to build a local capability to meet ongoing needs. As pointed out in the preceding section, the survey of local capabilities in Connecticut identified a statewide lack of expertise in the determination of cause and origin. By providing additional training to local fire marshals, the state is addressing the need without becoming directly involved in a local function.

An alternative strategy that may be employed where neither local nor state resources can fill a gap involves the development of a mechanism by which resources can be pooled. In rural areas, the needs of each jurisdiction may be too slight to justify investment in a local investigative capability. However, the needs of an entire region or county may be sufficient to support an arson unit to be called on by each locality as needed. In this situation, the state can play an important role through analysis of its needs assessment data and by acting as a facilitator to bring the different jurisdictions together. In New Jersey, the ACAP project in the Attorney General's Office asked each county to establish an arson unit with full-time investigative and prosecution staff. Of the 21 counties in the state, 15 have complied, although not all units are staffed full-time. In some of the rural counties, however, resources (and possibly demand) are lacking. The idea of establishing multi-county, regional units is being considered as an alternative.

Regardless of whether the state's role is proactive or more supportive, the politics of local autonomy and mistrust of state intervention must be carefully recognized so that well-intentioned state initiatives are not side-tracked as a result of battles over "turf." The process of resource allocation and program planning should jointly involve local and state officials to the extent possible. In the following section, direct and specialized state assistance in investigation and prosecution are discussed. In addition, the specific state role in providing training and technical assistance is also covered. Finally, general issues of state leadership are reviewed.

7.4 State Role in Arson Investigation

7.4.1 State Investigative Authority

If state anti-arson efforts are to be effective, states should not only receive timely and accurate reports of fires from localities, but also have the authority to investigate fires throughout the state. In the ACAP

states, there appears to be fairly broad legal authority for state investigation of fires. In five of the eight states receiving ACAP grants, there is a legal requirement imposed on the state fire marshal to investigate certain categories of fires such as those that are not attributable to accident or suspicious fires involving property loss or fatality.¹ Connecticut,² New Jersey,³ and Illinois,⁴ on the other hand, authorize investigations by the state fire marshal but do not mandate them. In fact, the authority of the New Jersey fire marshal stems from the statutory power of the state police to investigate all crimes. The broadest provision concerning the state role in investigation is found in Illinois, whose law explicitly authorizes state fire marshal's investigators to supervise and direct local investigation when it is deemed expedient or necessary.⁵

The practice of state involvement in investigations does not always directly reflect the applicable statutory language. In states in which a state role is mandated as well as those where the state is given the authority to become involved, the task of fire investigation is delegated to local authorities in the majority of cases. In Maryland, for example, the state fire marshal's office only conducts investigations in unincorporated areas or when requested by local authorities.

In general, the statutory provisions in these states seem to allow for sufficient state investigative authority. However, considerations of reporting, resources, level of cooperation, and a variety of other factors affect the translation of law into practice.

7.4.2 Assisting Local Communities in Arson Investigation Activities

Once states have assessed local investigative capabilities, they can offer two types of assistance:

- general investigation--i.e., fire scene examination and fire cause and origin determination; and
- specialized investigation--e.g., assistance with "paper chases," accountant services, and intelligence analysis; investigation of inter-county cases and cases with organized crime aspects; preparation of civil suits concerning housing code violations and tax arrearages; and provision

¹Massachusetts General Laws, Chp.148 Sec 3; Maryland Annotated Code, Article 38A, Subsection 8.

²Rhode Island General Laws, 23-28.2-11.

³Conn. General Statutes, 529-57.

⁴New Jersey Statutes Annotated, 53:2-1.

⁵Illinois Revised Statutes, Ch. 127 1/2, Subsection 6.

⁶Ibid.

of laboratory analysis and expert assistance and testimony (in technical areas such as structural and electrical engineering).

States can become involved in arson investigative activities in two basic ways:

- proactive involvement, based on analysis of fire/arson patterns and/or independent source information; and
- reactive involvement, based on requests from local authorities.

At present, most state investigative activity is general in nature (although under ACAP grants, several states have developed or enhanced specialized investigative capabilities) and is reactive in origin. There are several interrelated reasons for this. First, reliable statewide fire and arson data are generally lacking, which makes it difficult for state agencies to identify patterns and concentrations of fires for which their assistance might be needed. In addition, limitations of state investigative resources preclude most proactive investigation except in the rare instance that the state receives a chance tip. Finally, there are "turf" issues: local communities sometimes see state intrusion into their jurisdiction as unnecessary and unwelcome. Thus, the bulk of the work of state investigators is on request of local authorities in rural areas that do not maintain their own general investigative capability.

Below, we discuss several initiatives taken by state ACAP projects to supplement and enhance local investigative activities.

General Investigative Activities

In all eight state ACAP projects general arson investigation is provided by state fire marshal investigators or state troopers. However, the levels of resources, lines of supervision and authority, and organizational structures differ substantially among states. Moreover, there are different advantages and limitations associated with each configuration of resources and organization.

Three states--Connecticut, Rhode Island, and Delaware--have centralized state investigative units in the fire marshal's office. Statewide coverage is provided in Rhode Island and Connecticut by nine investigators. (In Connecticut these are state troopers as the Fire Marshal is part of the State Police.) Neither of these two states believes it has sufficient personnel to meet the need for state investigative services. The situation is particularly severe in Connecticut where the Fire Marshal's troopers can only carry out initial investigations with the current manpower. As a result, no follow-up investigations are conducted for many fires. The centralized organization of state fire investigators and the manpower shortages have led some rural communities to turn to regular barracks state troopers for assistance since the Fire Marshal's troopers are perceived to be too busy or too far away. However,

those involved recognize that this strategy does not provide the local department with the level of expertise in fire investigation that ideally should be available from the state.

Six of the ACAP states--New Jersey, Massachusetts, Delaware, Maryland, Illinois, and Florida--have regionalized their arson investigative capabilities. In general, regionalization makes it possible for investigators to respond to fires more quickly than is the case in states with centralized investigative units. In Florida and Maryland, the focus of assistance to localities differs. There are seven regional offices of the Maryland Fire Marshal, each with an assistant chief and three or four investigators who possess police powers. Their efforts are concentrated on unincorporated areas and specific requests for assistance. In contrast, the Florida Bureau of Fire Investigation handles requests from the entire state (including the city of Miami, which has its own arson unit) with a staff of 28 investigators working out of seven field offices.

In one ACAP state, although arson investigative resources are deployed regionally, there is no centralized supervision over those resources. One state police officer is assigned to each county prosecutor's office to handle all fire investigations. The allocation of these positions is not the result of a needs assessment, nor is it based on caseload. Furthermore, there are no uniform qualifications for the assignment, with the result that some counties are staffed with knowledgeable investigators, whereas other counties are staffed with investigators who have no experience in fire investigation. Although they are officially assigned to work full-time on fire investigation, the investigators often must work on other cases as well. Since these investigators are state police officers, they are subject to transfer to other units within that organization, creating relatively frequent turnover of investigators just as they begin to acquire valuable experience. Finally, although the troopers assigned to fire investigation are ostensibly designated by the State Fire Marshal, they do not in reality report to him or work under his direct supervision. As a result, there are frequent lapses of communication, lack of centralized information on investigations, and a general lack of coordination in the state's approach to arson investigation.

Illinois maintains perhaps the most elaborate state investigative system--Operation START (Statewide Tactical Arson Response Teams). This represents a coordinated effort on the part of the office of the State Fire Marshal and the Department of Law Enforcement (DLE). Local authorities call a state police hotline if they wish investigative assistance. The State Police notifies the State Fire Marshal's Office which provides cause and origin determination from 16 regional offices. Each office is manned by one investigator. If necessary, either local authorities or the State Fire Marshal's investigators may call for assistance from one of the DLE's nine crime scene technicians. Finally, if follow-up investigation is necessary, the case is turned over to the DLE's Department of Criminal Investigation (DCI). DCI operates from 16 zone offices with a total of 294 agents. Currently, four of these agents handle most arson investigations. The Illinois system depends both on state-level and intra-state coordination and is notable for its precise division of investigative labor.

The experiences of the ACAP state projects suggest that key elements in a state's general arson investigative deployment beyond its grounding in an

assessment of local needs and capabilities ought to be centralized supervision, clear chains of authority and responsibility, and precise well-documented procedures for requesting state assistance.

7.4.3 Specialized Investigative Services

States provide various types of specialized investigative services, both proactively and in response to local requests. The types of specialized services performed in the ACAP states include the following:

- | | | |
|----------------------|---|--|
| specialized services | { | • accountants; |
| | | • laboratory services; |
| | | • assistance with civil aspects of arson cases; |
| proactive strategies | { | • analysis of cases to identify patterns of fires; |
| | | • analysis of cases to identify common <u>modus operandi</u> ; and |
| | | • facilitating sharing of information among jurisdictions so that trends or patterns are recognized. |

In addition to using specialists such as accountants or forensic scientists in their own investigations, a number of states make this expert assistance available to local investigators and prosecutors as well. Accountants are available in New Jersey, Delaware, and Rhode Island at the state level to assist in arson cases by analyzing bank and other financial records and directing "paper chases."

State laboratories may be important tools in cases initiated at the state level as well as in cases in which a locality requests specialized assistance. In addition to analyzing fire debris, state laboratories may be in a position to develop and disseminate standardized evidence packaging procedures and innovative analytical techniques.

Connecticut maintains a trained chemist and two technicians dedicated to arson work on the staff of its state police laboratory. The chemist is working to develop new techniques for the analysis of fire debris and other arson evidence. As a result of training and encouragement of local investigators in Connecticut, a number of departments have begun to send fire debris to the laboratory. In 1980, New Haven made far greater use of the laboratory than did any other city or town in the state, but officials predict a more balanced utilization pattern in the future. The laboratory has also developed minimum standards for the packaging of evidence, resulting in submission of samples in better condition for analysis.

New Jersey's State Police laboratory operates on a regional basis. There are four regional laboratories which serve designated geographical areas. This makes laboratory services much more accessible to local officials throughout the state. ACAP funds were used to purchase new equipment and

hire additional staff for two branches of the laboratory. A pre-post evaluation conducted at the Little Falls branch by the State's Division of Criminal Justice reveals great improvement in turnaround time for the processing of samples. During the six months preceding the ACAP grant period, analysis was completed within one week in 27 percent of cases; by contrast, during the six months after the receipt of the new equipment and the hiring of the new staff, 77 percent of cases were completed within one week. Several significant programs relating to arson are underway in the New Jersey laboratory system. At the branch in West Trenton, chemists are developing and testing extremely innovative methods of analyzing samples from fire scenes. The major work involves the "310 trapping concentrator," a device which captures and concentrates vapors from fire debris. It results in analysis with approximately twenty times the sensitivity of normal "head space" techniques. The West Trenton laboratory is also experimenting with analysis of air samples collected at fire scenes.

The Illinois Department of Law Enforcement Laboratories are also experimenting with innovative concentration techniques. In addition, they have evaluated various evidence packaging techniques and developed standards for evidence packaging and preservation.

Another type of specialized assistance that the state may offer to local jurisdictions is illustrated by the ACAP project in Massachusetts. Two investigators and attorneys, paid under the state's grant, are located in the Civil Division of the Attorney General's Office where they develop arson-related civil cases dealing with housing code violations, tax arrearages and foreclosures, and eminent domain property seizures. As discussed in Section 7.5.2 below, this innovative civil enforcement unit has been very effective.

Several of the ACAP states have developed proactive approaches to arson investigation. The state is in a unique position to gather and analyze information from a variety of sources to identify patterns of suspicious fires or common modus operandi. Furthermore, the state can alert local investigative authorities to possible fire patterns and facilitate a coordinated response to the crimes. Most of the investigations carried out by New Jersey's State Police Arson Unit (SPAU) are in response to local requests, but SPAU occasionally initiates independent investigations if, for example, there is reason to suspect organized crime involvement in a fire or group of fires. Two intelligence analysts within SPAU examine fire patterns based on reports from local departments. For example, the analysts have been looking at patterns of fires in bars, diners, pizza parlors, and adult book stores. Thus, they have requested that departments report to them all fires in these categories. If the intelligence analysts discover an apparent pattern of fires, they may refer the case to the state for investigation or try to link local investigative authorities in the jurisdictions where the fires have occurred. In other words, the analysts hope that their office will become a clearinghouse for arson intelligence information. In this regard, they are also available to respond to local requests for information on arson modus operandi and other matters.

Similarly, the Rhode Island Attorney General's office has hired two accountants under the ACAP grant. They are working on cases involving several large landowners in a Providence neighborhood who are suspected of involvement in a number of arson fires. This involves detailed research into property transactions and insurance matters.

In sum, the ACAP states provide some good examples of specialized investigation services that other states might wish to consider. Indeed, it appears that one of the most valuable roles that state government can play in fighting arson is to make available to localities just this kind of specialized investigative assistance on an as-needed basis. These services are usually beyond the resources of local government and they are not required often enough to justify full-time staff in any localities except large cities. Thus, it is most cost-effective for states to provide them.

7.4.4 Increasing Coordination of State and Local Arson Investigation

The dominant mode of state arson investigation activity--namely, general investigation in response to local requests--would not pose problems if it were clear that the state was being called into the areas and on the cases most in need of investigative assistance. Unfortunately, this is not always the case, particularly in the cities. In most rural areas, there are no arson investigation units and fire departments are accustomed to calling for state assistance. However, in cities with arson units--and with particularly severe arson problems--the situation becomes much more complicated. City arson squads are unlikely to request state help, regardless of their actual level of need. City officials might fear that requests for outside assistance imply that they are unable to handle the problem themselves.

This is a difficult obstacle to overcome. Reliable arson data might permit proactive state involvement in urban areas demonstrably unable to control arson. Of course, this is a very sensitive political issue which would have to be handled with extreme care. Staff at one state investigation unit reported that they once entered an investigation in a major city without being invited by city officials. They were quickly and forcefully made to realize their mistake.

The Rhode Island ACAP Project Director (a Special Assistant Attorney General) has devoted considerable attention to encouraging local requests for assistance from the State Fire Marshal's Office. He has emphasized that by calling in the State Fire Marshal's investigators, the municipality may also obtain the early involvement of the Attorney General's Office. Furthermore, local authorities have been encouraged to contact the Attorney General's Office directly for assistance with the legal aspects of arson investigations. These efforts in Rhode Island have begun to bear fruit. The Attorney General's Office reports increasing numbers of requests for advice and assistance from local officials. State Fire Marshal's investigators are now actively involved in investigations in one major city after many years of resistance to state involvement.

Other ACAP projects also report good cooperation between local authorities and the state fire marshal. Two other techniques which have been used to encourage coordination are:

- Guidelines for local requests for state services.

Connecticut and Illinois have developed written guidelines to assist local officials in calling in state arson investigators. (The Illinois guidelines may be found in Appendix F.)

- Use of local liaisons.

ACAP project staff in New Jersey and Rhode Island identified contact people at the local level (in New Jersey in each county, and in Rhode Island in each city and town) to act as liaisons. This network of contacts facilitates reporting of data, requesting assistance on particular investigations, and identifying persons to attend state training programs, and seems to be a generally effective way to improve inter-level communication and cooperation.

As with most problems of inter-governmental and inter-agency relations, coordination and cooperation in investigating arson cannot be achieved by structural changes and procedural requirements alone. Personalities will always play a critical role. While state arson unit staff should strive to resolve personality conflicts, much of this will always remain a matter of chance. For example, officials in two ACAP states reported having difficulties for a number of years with certain high level officials in several large cities. These officials simply refused to call for state assistance in investigating fires in their cities. Within the past year these officials left office and were replaced by people much more receptive to state assistance. As a result, relations with these cities have improved dramatically.

As discussed in Section 7.3.3, the type of state services designed in response to local needs may need to be adjusted depending on the level of state resources as well as local needs and capabilities. Clearly, to the extent that state resources are expended in direct investigation, they become unavailable for more proactive initiatives.

In New Jersey and Connecticut, state authorities have eased the burden on state investigators by encouraging (and helping to finance) the development of local arson units. The immediate impact in New Jersey is that the State Police Arson Unit (SPAU) has time to focus on uncovered rural areas. In the long run, however, it is hoped that regional arson units will be established to cover rural areas, thus freeing SPAU to concentrate on complex, inter-county cases and patterns of suspected arsons that the intelligence analysts are beginning to identify based on data supplied by the localities. SPAU sees its major mission to be the investigation of such cases. Similarly, staff in the Connecticut State Fire Marshal's Office report that several of the ACAP demonstration cities are making fewer requests for state assistance now that their own units are in place. This frees time for state investigators to work in areas of the state that have inadequate investigative resources.

7.5 State Role in Arson Prosecution

Most prosecution of arson, like that of other crimes, is carried out by local or county prosecutors. Because arson is fundamentally a local problem, its prosecution should remain concentrated at the local level. However, as with investigation, our observations suggest that state authorities should supplement local action where gaps exist in local capabilities, particularly in cross-jurisdictional cases and other matters in which local prosecutors could benefit from assistance. Indeed, state level arson prosecution is now generally confined to cases with inter-county or statewide dimensions. These are usually complex cases involving organized crime or political corruption.

State assistance in arson prosecution, as in investigation, can take the form of either actual state involvement in the case or the provision of specialized services. Direct state involvement in prosecution differs from state investigative assistance in that there is always a local prosecutor, whereas many rural areas have no investigative capability. Therefore, an important aspect of state prosecutorial assistance is the need to clarify the roles of the state and the local jurisdiction. These issues are discussed in the following section; specialized services provided by state prosecutors are reviewed subsequently.

7.5.1 Defining the State Role in Prosecution

The most effective use of arson prosecution resources requires communication and cooperation among levels of prosecutorial authorities. A coordinated approach to arson prosecution avoids duplication of effort, ensures the best allocation of state resources, and reduces the risk of "turf" disputes. A key element in achieving this coordination is a clearly specified division of responsibility between state and local agencies. However, this should not necessarily mean that more cases are handled at the state level or that state prosecutors frequently supercede local prosecutors. Instead, it means that all parties should know who is responsible for which types of cases and the reasons for this allocation of effort. The experiences of two states in which both state and local prosecutors are actively involved in arson prosecution, but in which the prosecution structures differ significantly, serve to illustrate these issues. In one, there is no clear division of responsibility, while in another there is a more centralized prosecutorial structure. These situations are discussed below.

In one ACAP state, the District Attorneys are largely autonomous and operate on budgets provided from county funds. The Attorney General is the chief state law enforcement officer, and he may supercede the District Attorney in any case. In practice, however, this rarely occurs; the Attorney General believes that the counties should handle their own cases.

This state has no guidelines or procedures for distribution of cases between state and local prosecutors. The system is extremely informal and case distribution is based more on personal contacts--or lack of them--than

on established policies. The only general principle seems to be that local law enforcement officials are to present matters first to their district Attorney. If the District Attorney cannot or will not pursue the case, it may be offered to the Attorney General's Office. In fact, according to one Assistant Attorney General, the office receives most arson cases it prosecutes through informal contacts with investigators who are frustrated with lack of action by the District Attorney. The state's ACAP grant application proposed the development of formal case distribution guidelines, but as yet they have not been produced.

This state's experience illustrates the sensitivity of localities to state initiated activity. Although the state may regard its actions as necessary given local reluctance to proceed on certain cases, local officials may see the state usurping their prerogatives and authority. In this state, an insurance industry respondent expressed the view that the most aggressive arson prosecution has occurred on the state level rather than the county level. This view has broad support and is based on the fact that the Attorney General's Office has won indictments and convictions in several large, well-publicized arson conspiracy cases in the past few years. As a result of the publicity surrounding these cases, some District Attorneys have expressed resentment that the Attorney General has benefitted at their expense. In the absence of any policies or guidelines defining the respective roles and duties of local and state prosecutors, such disputes are not surprising.

In New Jersey, the other state referred to above, prosecutorial authority is much more centralized. The state Criminal Justice Act of 1970, passed in response to public outcry over evidence of widespread corruption in County Prosecutors' Offices, vested tremendous power in the Attorney General. As chief law enforcement officer in the state, the Attorney General is required by law to "maintain a general supervision over...County Prosecutors with a view to obtaining effective and uniform enforcement of the criminal laws throughout the State." This provision is understood to allow the Attorney General to mandate adoption of standard procedures by all county prosecutors. For example, the office recently developed (in conjunction with the County Prosecutors' Association) and promulgated a manual which is intended to be "a comprehensive statement of policies and practices" to be followed by all County Prosecutors' Offices. In addition, the manual clearly describes the relationships between County Prosecutors and the Attorney General's Office and lays out detailed procedures for their interaction. The Prosecutor's Manual specifies the types of cases that will normally be handled by the Attorney General's Office, and the procedures whereby state involvement is to be initiated. The major categories of cases in which the Attorney General assumes prosecutorial control are those with:

- appearance of a conflict of interest; e.g., when a member of the County Prosecutor's staff has had an association with the defense attorney; or

¹ New Jersey Statutes Annotated, 52:1713-103.

- "broad statewide implications," e.g., "substantial criminal activity...beyond the borders of a single county;" legal questions [with] broad statewide implications; other matters in which the County Prosecutor requests supercession.

The Attorney General's Office must respond in writing to all requests for supercession by County Prosecutors. In addition, the Office may supercede unilaterally in cases with "an overriding state interest," or when a matter involves "actual investigation of a County Prosecutor's office or staff." Finally, "discretionary supercession" by the Attorney General's Office is permitted in cases involving county officials, gambling, and narcotics if there are "overtones of governmental corruption or improper police involvement," or if the matter is multi-county in scope; and cases involving industries or agencies closely regulated by the state, such as racetracks, utility authorities, and motor vehicle agencies.

There is a Prosecutors' Supervisory Section in the Attorney General's Office whose major mission is to see that these procedures are followed throughout the state. In short, the degree of prosecutorial centralization and standardization in New Jersey is unique among the states we visited that have two levels of prosecution. However, this does not mean that there is more supercession of county cases by the Attorney General in New Jersey. Indeed, this seems to be as rare an event in New Jersey as elsewhere. Moreover, the vast majority of supercessions that do occur result from conflicts of interest. At the same time, our interviews indicate that there is relatively little hostility between the Attorney General's Office and the County Prosecutor's Offices. On the contrary, there seems to be substantial cooperation and communication.

Admittedly, a major reason that New Jersey has been able to establish clear policies and procedures is that the state's Attorney General has much greater power than does his counterpart in the other state to control and supervise local prosecutors. Such a centralized and standardized system might be impossible to implement in many states. However, such states should explore methods to discuss and adopt guidelines and procedures. Systems based solely on informal contacts are too dependent on personal relationships that often prove transitory. It is essential that there be as much institutionalization of relationships as possible. One way to achieve this is through the development of clear and standardized procedures.

In other ACAP states, the issues of prosecutorial coordination are not as important. For example, in Connecticut, Florida, and Illinois, the Chief State's Attorney or Attorney General has little or no involvement in arson prosecution, and in Rhode Island and Delaware there is only one level of prosecution--the Attorney General's Office.

In Connecticut, county government has been abolished. The State's Attorneys are organized by judicial districts (which correspond roughly to counties) but receive their budgets from the Chief State's Attorney. There

¹New Jersey Prosecutor's Manual, pp. 21-22.

are regular meetings of all State's Attorneys with the Chief State's Attorney. In theory, this could be a highly centralized system, but in practice the individual State's Attorneys have substantial authority. The Chief State's Attorney is very reluctant to intervene in State's Attorneys' cases, although he has broad statutory power to do so. This is partially a function of the very small staff of criminal attorneys in the Chief State's Attorney's Office. However, it is also a function of a strong tradition of local autonomy. In districts with strong State's Attorneys--which include most of the major cities in Connecticut--the Chief State's Attorney's Office will not involve itself in a case without clearing it with the State's Attorney. The Chief State's Attorney's Office handles only "special investigations" in such areas as welfare and consumer fraud, white collar crime, drugs, political corruption, and organized crime. The ACAP grant has been used to improve arson prosecution at the level of the State's Attorneys' offices. Funding has been provided for two full-time arson prosecutors and three full-time arson investigators. They are working in the State's Attorney's Offices in New Haven, Hartford, and Bridgeport.

In Rhode Island and Delaware there is only one level of prosecution--the Attorney General's Office. By virtue of its position as the state's only prosecutor, the Rhode Island Attorney General's Office handles all arson prosecutions. Under the ACAP grant, an Assistant Attorney General has been designated a full-time arson prosecutor. His job is to coordinate arson prosecution in the state by screening all cases, handling the most challenging himself, and distributing the rest to the regular trial attorneys. So far, in order to accumulate experience, he has handled all arson cases that have come to the office, but in the future he plans to carry out the screening and distribution roles. In Delaware, a Deputy Attorney General works full-time on arson cases. He works closely with State Fire Marshal's investigators and screens every arson case that comes to the attention of the office.

7.5.2 Specialized Prosecution Services

ACAP states have taken other actions to improve prosecutorial involvement in the control of arson. A unique feature of Massachusetts' ACAP project is its "civil enforcement" component. The grant supports two Assistant Attorneys General who work full-time on legal action related to arson control in the city of Boston. The unit's primary strategy is to use the threat of litigation as leverage to convince landlords to correct code violations or remedy other problems with buildings which might make them high arson risks. For example, the office also helped to develop an arrangement among a landlord, the tenants, and a neighborhood group whereby the tenants pay their rent to the neighborhood group which uses the money to make necessary repairs on the building.

The civil enforcement unit has also worked closely with the Boston Tax Department and the Land Court to expedite the usually lengthy process of tax foreclosure on buildings deemed to be high arson risks. The unit has also been instrumental in the collection of almost \$175,000 in back taxes on buildings in Boston. This represents a high degree of cost-effectiveness, since the component's budget was somewhat less than this figure.

The civil enforcement unit has filed a number of significant lawsuits. One is an attempt to block conversion of a fire-damaged building to condominiums. The contention here is that the owner materially misrepresented the facts when he informed the tenants that the city had condemned the building. A second major case constitutes an assault on the whole process of disinvestment and "milking" properties. The state alleged that the defendant, a major Boston landlord, is tax delinquent, has allowed numerous code violations to go unabated, has failed to provide proper building maintenance, and has used sham corporations and fraudulent conveyances to disguise and inflate his interest in the property. The state's objective is to have this whole range of practices declared unfair and deceptive under the state's Consumer Protection Act.

In sum, the unit is attempting to deal with arson-related activities in a commercial law context as business decisions. The objective is to obtain court rulings which will constitute a strong statement that real estate development and management must be carried on in a non-abusive manner. Massachusetts is considering the establishment of civil enforcement divisions to cover other parts of the state. Certainly, this is an idea of great potential value to jurisdictions across the nation.

The ACAP grant in New Jersey has provided funding for a "legal advisor" in the Attorney General's Office. This attorney works closely with the State Police Arson Unit on the development of complex arson cases. He is also available to provide guidance on legal matters to County Prosecutors' Offices. The New Jersey Attorney General's Office has also committed itself to try to set an example to County Prosecutors by prosecuting "marginal" arson cases and showing that they can be won. In addition, the state has recently established a Habitual Offenders Unit within the Department of Community Affairs of the Bureau of Housing Inspection. This unit is working to identify and prosecute property owners with records of substantial code violations who may also be involved in arson. This strategy depends on the fact that New Jersey has a strong state housing code and that the state is heavily involved in code enforcement. Although other ACAP states, including Delaware and Maryland, have state housing codes, the national norm is reliance on locally enacted codes and local enforcement.

The ACAP program has facilitated some important and worthwhile initiatives in state arson prosecution. Numerous dedicated professionals in attorney general's offices and state investigative agencies are attempting, in some very imaginative ways, to establish the coordination and cooperation which is crucial to effective arson prosecution. However, numerous problems remain in this area. A key question is whether the initiatives sponsored by ACAP can be institutionalized--not only in terms of staff and other resources but also in terms of permanent guidelines and policies. Inter-level conflict and bitterness may cripple arson prosecution. States should not intrude unduly into the proper province of local prosecutors. However, there must be procedures and relationships established so that state prosecutors may offer assistance to local prosecutors when necessary and appropriate.

7.6 Technical Assistance and Training

Over and above direct involvement in arson investigation and prosecution activities, states may also offer training and technical assistance related to arson. This is an extremely important field for state activity because it is designed to help communities improve their own capabilities. By working with localities, states may also learn about differing approaches to arson control which in turn may be helpful in establishing statewide standards for arson investigation and prosecution.

There are a great many ways in which a state government can provide informal assistance to localities. It can act as a clearinghouse for advice and information and provide expertise spanning the investigative and prosecutorial processes. For example, state prosecutors can provide advice to local prosecutors and police on charging decisions, subpoenas, warrants, documentation of motives, and other matters. Similarly, state investigators can offer assistance and advice to local investigators. States can provide encouragement and advice to counties and municipalities on establishing their own arson units. For example, New Jersey ACAP project staff answered numerous questions from the county level concerning equipment, scheduling, and other matters relevant to establishment of county arson units. Finally, state officials can facilitate the exchange of information and technical assistance among localities. For example, in Connecticut, the ACAP project has arranged for New Haven to provide guidance to other cities on its arson early warning system and has helped New Haven obtain materials on a school education program developed by Hartford.

All of these examples illustrate the important informal role state government play in fostering a coordinated anti-arson program in which information on the latest and most effective techniques flows freely throughout the state--both between state and local authorities and among local authorities themselves. States may also play a more formal role in training and dissemination. A number of training activities initiated in the ACAP states are discussed in Section 3.4.1 above.

7.7 General State Leadership

In this chapter, we have discussed a range of specific actions states can take to improve their anti-arson programs. It is also important to note that high state officials may, in a variety of ways, provide valuable general leadership in the fight against arson. They may lend visible support through speeches, press conferences, and the like; they may also offer behind-the-scenes political support for the funding of anti-arson programs.

7.7.1 Role of the Governor and Other High State Officials

Of the states we visited, Connecticut's high officials seem particularly committed to the fight against arson. The late Governor Grasso made a number of key public appearances to lend support to the state's program. She

held press conferences when the state grant was received from LEAA and again when the state awarded sub-grants to local demonstration projects. Since Governor Grasso's death, Governor O'Neill has continued the executive's support of the arson project. Indeed, it appears that the state will assume funding of the key elements of the ACAP project--statewide training and laboratory and prosecutorial personnel--upon expiration of the federal grant.

In New Jersey, the governor convened the task force that produced the plan being implemented under ACAP funding. The Attorney General has held several press conferences, one of which marked the signing of the state's reporting-immunity law and appointment of the Governor's Advisory Committee on Arson Control, and he taped a brief introduction to a television advertisement for the New Jersey Arson Hotline.

7.7.2 Role of the State Fire Marshal

The state fire marshal could be a pivotal figure in state anti-arson programs. This official could take the lead in orchestrating state investigative efforts, helping to coordinate investigative and prosecutorial activity, working to win publicity for the arson problem and the fight against it, and offering general leadership and support.

All of the ACAP states have state fire marshals, but the position varies considerably in locus, authority, and influence. In Connecticut (where it is part of the state police), and Rhode Island (where it is in the Department of Fire Safety), the Fire Marshal's Office is the major state fire investigative agency. In New Jersey, by contrast, the Fire Marshal has no authority to investigate fires. In fact, until recently the Marshal was in the Treasury Department where he was mainly responsible for fire safety in buildings owned and leased by the state. Recently, the New Jersey Marshal was brought into the Department of Law and Public Safety, but his new role is not yet fully defined.

Although his office is part of the state police, the Fire Marshal in one state does not have direct control of state fire investigative personnel. As noted earlier, the state investigators in each county who perform cause and origin determinations are selected by, and report to, the head of the investigative arm of the state police. Because of this command structure and because the state police investigative unit must investigate a wide range of matters, it is difficult for the State Fire Marshal to orchestrate an aggressive fire and arson investigation effort.

7.7.3 State Arson Task Force

State arson task forces may be in a position to develop and implement comprehensive anti-arson programs, although some state task forces have been much more heavily involved in planning than in implementing programs. A

number of state task forces have been formed to develop "master plans" for the fight against arson. Several of these plans became the basis of ACAP grant applications. In several cases the state task forces ceased to exist once the plans were developed. They have not administrated the projects on an ongoing basis. In Connecticut, the task force remains in existence, but a subset of its members--the "management group"--oversees the ACAP project. In Illinois and Maryland state task forces are actively involved in implementing anti-arson measures.

New Jersey's task force completed its work with the issuance of the State Plan, but another state level group was recently appointed by the Governor to work toward development of a coordinated statewide anti-arson effort. This New Jersey Advisory Committee on Arson Control differs from the usual state task force in composition. Rather than being made up of top state officials who must often miss meetings and frequently delegate the work to subordinates, the advisory committee is composed of line managers of groups and agencies directly involved in fighting arson. For example, the lieutenant in charge of the State Police Arson Unit sits on the committee rather than some higher level staff officer from the State Police. The work of the advisory committee will be done largely in six subcommittees. These subcommittees will develop proposals and submit them to the full committee for approval.

In general, task forces composed of high state officials may be useful for the visibility and publicity they can lend to anti-arson efforts. They may also be able to encourage increased cooperation and coordination. However, it appears that the practical work of developing inter-agency harmony and cooperation may be carried out more successfully by groups composed of line managers of those agencies and departments directly involved. (For a discussion of local task forces, see Chapter 6.)

7.7.4 State Financial Assistance to Local Arson Efforts

An obvious way for the state to exert leadership in the arson area is to provide direct funding for local programs. However, of the ACAP states, only Connecticut and Maryland have passed any ACAP grant money directly to local government. This support has helped to foster a better spirit of cooperation between state and local authorities in these states.

The lack of any pass-through of ACAP money to localities is a source of bitterness in some other states. In one state where the vast majority of the grant went to the Attorney General's Office, some district attorneys' offices and local fire departments were resentful. Indeed, when the state attempted to persuade each judicial district to establish an arson strike force without providing any money to support such initiatives, it met with strong resistance. In fact, only a few of the strike forces have been established.

7.8 Summary and Conclusions

Since arson is fundamentally a local problem, anti-arson programs are largely the province of local authorities. However, state government can play an important role by supporting and coordinating local efforts. In this chapter we have discussed a number of actions states may take to fulfill this role. This discussion suggests the following key elements for successful state anti-arson programs:

Legislative and Regulatory Framework

- Comprehensive legislation and regulations relevant to all civil and criminal aspects of arson and development of new proposals or legislative packages as necessary. Key areas of legislation and regulations include:
 - arson penal law with adequate coverage of arson for profit;
 - local reporting of fire and arson incidents;
 - Reporting-immunity laws to facilitate exchange of information between insurers and public officials;
 - insurance regulations and procedures which facilitate effective underwriting and claims investigation; and
 - clearly defined authority for state investigative and prosecutorial agencies to provide assistance to local agencies.

Statewide Needs Assessment

- Centralized data system based on local authorities' reporting fire and arson incidents to a designated state agency. There should be inducements to localities to make timely, complete, and accurate reports--e.g., provide tabulation and analysis of data for use by localities in managing fire services and arson investigation units and developing local anti-arson programs; stress that documentation of arson problem may result in state assistance in investigation and prosecution;
- Based on the data system, assessment of the extent and patterns of arson incidence statewide;
- Assessment of local investigative and prosecutorial capabilities and local receptivity to state assistance;
- Assessment of state investigative and prosecutorial capabilities;

- Carefully designed plan for targeting available state resources to supplement local efforts in the areas most in need of assistance; and
- Coordination of regional or county investigative units and other programs as necessary and appropriate.

State Investigative Services: a program with the following attributes:

- Firm basis in an assessment of local needs and state capabilities;
- Sensitivity to local attitudes toward state involvement--e.g., "turf" issues, "home rule" traditions; and
- Clearly defined and documented procedures for state investigative involvement in localities--e.g., use of local liaisons.

A program chosen from the following service types and methods of involvement as appropriate to the considerations listed above:

• Types of Services:

- general investigation: fire scene examination, cause-and-origin determination, general follow-up investigation; and
- specialized services: services which some localities cannot provide or which may be more cost-effectively provided at the state level--e.g., "paper chase," accountant services, intelligence, assistance with multi-jurisdictional and organized crime cases, civil matters such as housing code enforcement and tax arrearages, laboratory services, and expert assistance and testimony.

• Methods of Involvement:

- proactive involvement: unilateral state involvement based on fire pattern analysis or independent source information; and
- reactive involvement: state involvement upon local request.

State Prosecution Services: a program based on local needs and state capabilities and with the following attributes:

- Clearly defined and documented policies and procedures governing state involvement in arson prosecution--e.g., division of local-state responsibility for various types of cases such as

those with multi-jurisdictional or organized crime aspects, and criteria and procedures for state supervision of local prosecutors;

- Assistance to local prosecutors, according to these policies and procedures; and
- Innovative prosecutorial approaches, such as civil enforcement strategies and provision of legal advice on arson cases to local prosecutors.

Technical Assistance and Training: A program of services and instruction most cost-effectively and appropriately provided at the state level:

- State officials may offer advice informally to local investigators and prosecutors and may act as statewide clearinghouses for information.
- States may develop and offer training (for further discussion of this see Section 3.4.1 above).

General Leadership

- Strong role for the state fire marshal in orchestrating an aggressive state investigative effort;
- State arson task force to develop state anti-arson programs and generate support and publicity for their implementation;
- Leadership from high state officials in publicizing anti-arson programs through speeches and press conferences, backing legislative and regulatory initiatives, and actively supporting the funding of state anti-arson programs; and
- State financial assistance to local anti-arson efforts as feasible and appropriate.

CHAPTER EIGHT

LESSONS LEARNED FROM ACAP

In the previous chapters we used the experiences of selected ACAP jurisdictions, information provided by officials in non-ACAP jurisdictions and experts in the field, and current literature to discuss the elements of a comprehensive arson control program, the key strategies involved in the various elements, and the factors likely to contribute to success of the various strategies. One of the original goals of the study was to provide information that may be helpful in designing and implementing future federal initiatives against arson. While the phaseout of LEAA has subordinated this goal to others, lessons as discussed in Chapter One, learned from ACAP may still be of value to possible future anti-arson grant programs. Thus, in this chapter we present a number of conclusions and recommendations concerning ACAP as a federally funded program.

8.1 Strengths and Weaknesses of ACAP

The available data are too incomplete and flawed to permit conclusive judgment as to whether ACAP funds have helped to "reduce the number of deaths, the personal injury and the economic loss related to arson in the grantee jurisdiction." As discussed in Chapter Three, however, ACAP money has enabled many jurisdictions to create investigative units or augment existing investigative staff, establish specialized arson prosecution, and purchase sophisticated new equipment for on-site detection of arson and laboratory analysis of fire debris. These improvements may lead, in time, to a reduction in the incidence and cost of arson in these jurisdictions. Moreover, it seems clear that ACAP funding has helped to "upgrade current knowledge regarding arson incidence and arson control approaches." Throughout this report we have cited examples of the use of ACAP funding to initiate or enhance ongoing efforts in the areas of arson detection, prevention, and enforcement.

LEAA set an extremely ambitious goal for ACAP, however. The program was intended to make substantial inroads in the spread of what many believe to be one of the country's most pernicious and fastest growing crimes. Full achievement of such a broad and ambitious goal may not have been possible even under the best of circumstances. In actuality, the program suffered from several problems of design and execution, some of which were the result of forces beyond the control of those responsible for administering the program and some of which were not. These are discussed below.

Emphasis on Goals Over Methods

The ACAP program and its funding of local efforts placed heavy emphasis on goals and less emphasis on specific methods of achieving these goals. The positive side of this decision is that it allowed applicants and grantees maximum flexibility in designing their programs to fit local needs and conditions. On the other hand, this approach led a substantial number of applicants to request LEAA funding for new staff and equipment without also planning for enhancement of the factors--mechanisms, relationships, skills, and

so forth--required to put the increased staff and improved equipment to the most effective use. Moreover, this factor may also help to explain the relative dearth of specific prevention programs in the ACAP projects.

The emphasis on goals over methods also limited LEAA's ability to evaluate project applications. For example, most applicants followed the guideline that the project include among its objectives improved information concerning the arson problem. Indeed, a number of jurisdictions did propose and make progress in this area. On the other hand, numerous jurisdictions requested funds for data processing personnel, software development, and computer time, without specifying how they proposed to develop the information systems or acknowledging the very serious obstacles that often exist to creation of effective systems. This is one of the reasons that we included a model investigative information system as an appendix to this report.

Short Response Time for ACAP Grant Applicants

The ACAP program announcement first appeared in the June 14, 1979 Federal Register. The final announcement for the program, based on comments received from prospective applicants, was published in the July 27 issue. Grant applications were due on August 29, 1979. According to one experienced observer, this was the shortest turnaround time for any LEAA discretionary program of this scope.

There are several explanations for the shortness of the response period. One is that LEAA and the Congress wished to get the program started quickly so as to call attention to arson as a serious problem and to hasten remedial action. Another possible explanation is that LEAA was losing political support at the time and wished to begin, as quickly as possible, a dramatic new initiative against a problem which was receiving increasing attention in Congress and in the press. In any case, the short response time resulted in some serious problems.

Research on arson and arson control was being conducted at an accelerating pace, and "program models" based on the experience of a few jurisdictions had been documented for use by applicants. However, even armed with these materials, applicants had insufficient time for careful assessment of options for enhancing arson control capabilities, absent substantial direct technical assistance. Most of the applicants were fire departments which, as a group, have had little or no experience with LEAA grant programs and their application requirements. This made the application process even more difficult.

Lack of time virtually precluded a systematic analysis of the nature and extent of the arson problem in applicant jurisdictions before submission of proposals. Had such data been available, it might have ensured that the jurisdictions selected were those most in need of funding by virtue of the extent of their arson problems.

As pointed out in Chapter Two, it is difficult to design effective anti-arson strategies without an accurate understanding of the nature of the arson problem faced by the jurisdiction. Yet, lack of resources and time for

serious planning, particularly given the difficulties in obtaining accurate data on the nature and extent of arson, meant that most jurisdictions did not have such an understanding at the outset of the ACAP program.

Results of Insufficient Planning

The lack of planning meant that the selection of anti-arson strategies by the grant applicants was not linked to a systematic understanding of the underlying causes of arson in the jurisdiction. Failure to identify the underlying causes of arson can have serious consequences, particularly in urban settings. As discussed in Chapter Four, the large cities in the Northeast and Midwest are especially prone to arson for profit in neighborhoods experiencing deterioration and abandonment. The profit motive may be further heightened when such neighborhoods are in the process of gentrification, since property owners have much to gain from converting deteriorating properties into attractive, high rent space. By mistaking deliberate disinvestment, abandonment, and torching of buildings for acts of vandalism, spite, or revenge, those attempting to control arson may be making a serious error. By expending the bulk of resources on identifying and prosecuting the firesetter, few resources will be available for effective prevention strategies.

In general, lack of systematic planning may mean that strategy selection and resource allocation do not have the benefit of full information on the problem.

Short Funding Period

Although ACAP was originally conceived as a multi-year effort, Congressional action eliminating LEAA limited it to one 12-18 month funding cycle. This was clearly too brief a period in which to achieve many of the ambitious objectives set by the program.

Many of the strategies adopted involved changes in organizational structure, including creation of arson units across governmental agency boundaries. Others involved increased coordination between the public and private sector. Such changes are not quickly implemented, since they involve not only the design of coordinated activities, but also the development of mutual respect, trust, and close working relationships.

The shortness of the funding cycle also impeded evaluation efforts. Case flow data for the year preceding the award were not available in all sites. Thus, examination of changes in case flow following receipt of the ACAP grant was virtually impossible. With a multi-year funding cycle, baseline data with which to compare post-award progress might have been obtained.

Lack of Continuing Support and Technical Assistance from the Funding Agency

The accelerated phase-out of LEAA also produced massive and sudden cutbacks in staff, high turnover in positions among those staff remaining,

and a serious decline in the morale of the agency. In such a setting, it is not surprising that ACAP jurisdictions received little ongoing support from the funding agency. This removed an important source of planning and other technical assistance that should have been available to the grantees.

8.2 An Example: Coordination and Cooperation

Many of the problems in program design and execution discussed above can be illustrated by examining the strategy of coordination and cooperation. This concept received heavy emphasis in the ACAP grant solicitation and applicants were required to furnish "documented proof" of its existence in their applications. Most applicants attempted to meet this criterion by submitting letters of commitment from police and fire chiefs, prosecutors, mayors, governors, insurance executives, regulatory board chairmen, community leaders, and other concerned individuals. The actual development of cooperation and coordination requires adequate time for planning, as well as a preliminary shakedown of such crucial issues as formalization (how formal should coordination activities be?), resource commitments (which agency or group must commit how much staff and other resources to the coordination effort?), and locus of authority (who has power to sponsor and/or supervise the coordination effort?). None of this could be accomplished in the short period of time allowed for the preparation of grant applications. As a result, LEAA was left with sparse information on which to base its grant award decisions.

Moreover, there are many resource constraints, complicated political realities, "turf" disputes, personal rivalries, and other factors which render the development of cooperation extremely difficult. As noted in Chapter Six and elsewhere in this report, a number of factors may be associated with effective cooperation. Both the short duration of the grant period and the lack of technical assistance may have prevented the ACAP jurisdictions from realizing the maximum level of cooperation.

One aspect of coordination which received very little attention in the ACAP projects was the involvement of community groups and individual citizens in government efforts to combat arson. The solicitation noted that community groups were a "valuable resource" in the fight against arson, and in Chapter Four, we discussed the potentially important role that they can play in many prevention and enforcement strategies. A number of applicants included in their proposals general statements that they would involve community organizations in the work of the project. Some submitted letters of commitment from community leaders. However, only Massachusetts presented and implemented a detailed plan for community group involvement.

There is often mutual hostility and suspicion between community groups and public officials, particularly those in the police and fire departments. This is a difficult barrier to overcome and helps to explain the lack of active community participation in most ACAP projects. Nevertheless, community groups are too valuable a resource not to be assigned a critical role in arson control programs.

8.3. Recommendations for Future Funding of Arson Control Programs

A number of recommendations for future federal arson control funding programs emerge from this discussion of the ACAP experience.

Two-Stage Funding Process

As noted above, the 12-18 month ACAP funding cycle was clearly too brief a period of time in which to achieve many of the objectives of the projects. At the same time, the planning and application process was very circumscribed. Since the arson problem is so complex, it might be worth considering a two-stage funding process for any future program. In the first stage, applicants would submit a brief concept paper setting forth their current understanding of the arson problem in the jurisdiction and their general approach to combatting arson. These concept papers would be used to select jurisdictions to receive relatively small planning grants. These grants would support a systematic analysis of the nature and extent of arson in the jurisdiction and detailed development of strategies linked to the results of that analysis. This analysis and planning would be presented in full proposals for action grants.

A two-stage process should result in a more rational and cost-effective allocation of funds. The nature and extent data would allow the funding agency to make awards on the basis of relative need. There would also be time and money available to develop more complete and detailed plans, particularly in the crucial areas of coordination and cooperation. With more complete discussion of proposed strategies in hand, the funding agency could make better decisions in awarding action grants.

Designation of Priority Areas

As noted throughout this report, it is particularly important to tap the entire resources of the community in the fight against arson. Particularly in urban areas, where neighborhood deterioration has been found to be closely linked to arson, priority should be given to projects which include detailed plans for involving housing authorities, tax and other government officials, the insurance industry, and the community in neighborhood revitalization/anti-arson efforts. In addition, the funding agency might seek to broaden the pool of grant recipients to include representatives from one or more of these groups.

Another priority which emerges from the ACAP experience is the potential value of information systems in planning, monitoring, and evaluating local efforts. The funding agency should consider requiring that grantees implement such systems as a prerequisite for funding. During the planning period these systems can be used to assess the nature and extent of the arson problem and collect baseline data for evaluation purposes. During the implementation phase of the project, these systems can assist in monitoring the activities of the project and resources expended; they can also assess project impact on arrests, convictions and, ultimately, arson incidence. While no one system may suit the needs of all recipient jurisdictions, some effort at standardization would clearly facilitate program evaluation efforts.

Ongoing Technical Assistance

The federal government has numerous resources that might be of great help to local jurisdictions in developing various aspects of their anti-arson programs. The funding agency should consider providing technical assistance to the grantees throughout the period of project planning and implementation, with heaviest emphasis placed on the early stages involving needs assessment and project design. Technical assistance on a national level may also serve the purpose of broadening the range of strategies available to each jurisdiction by allowing them to benefit from what others have learned.

Technology Transfer

The exchange of information could be extended beyond the period of the program. One way to do this would be to require reports--either produced by the grantees themselves or by contractors--on the strategies and activities of each project, stressing outcomes, results, and factors associated with success and failure. Such reports could be extremely useful to other jurisdictions interested in developing or enhancing arson control programs. In general, they would contribute to an ongoing dissemination of information on the state-of-the-art in arson control.

The ACAP concept of providing funds for locally developed anti-arson programs appears to us to be basically sound. With modifications such as those proposed in this chapter, a future program might have even more chance of success in the continuing fight against a very serious criminal and social problem.

CONTINUED

3 OF 6

APPENDIX A

ACAP Project Abstracts

State: Kansas
Area Served: Wichita/Sedgwick County
Population: 103,000
Land Area: 43 sq. miles (city)
Grant Recipient: City of Wichita, 445 North Main, Wichita, Kansas 67202
Budget: \$316,510
Duration: 3/3/80-1/31/81
Contact: Jordan D. Jones, Fire Captain
Telephone No: (316) 268-4149

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: n/a # Fire Depts.: n/a Fire Service Budget: 1980:\$7,901,353
Police Personnel: n/a # Fire Personnel: 373 Arson Inv. Budget: 1980:\$62,227
Powers of Fire Investigators: Fire investigators are certified peace officers by state statute and city ordinance. Powers may be exercised for fires, arson, or explosions.

FIRE DATA

Total Fires: <u>3602</u>	Reporting Period: <u>1980</u>
Arson Investigations: <u>475</u>	<u>Criteria for Investigation:</u>
Fires Attributed to Arson: <u>233</u>	During Grant: <u>\$1500 or more</u>
Estimated Dollar Loss: * <u>\$647,810</u>	in damage; suspicious/unknown
Deaths: * civilian <u>6</u> firefighter <u>0</u>	origin; causing death or
Injuries: * civilian <u>73</u> firefighter <u>93</u>	serious injury. Presently:
	<u>every fire is investigated.</u>

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire-police Wichita/Sedgwick County Arson Squad housed in the city police department.

Organization: One police lt., three police detectives, two city fire investigators, one county sheriff's deputy, one county fire investigator report to a chief fire investigator, who reports to all four chiefs.

Scope: Responsible for all criterion fires, and incendiary explosions. If an explosion is not incendiary, the police Bomb Squad will handle it.

Police-Fire Roles: The arson squad handles all investigations from beginning to end.

Links with Federal Agencies: Project maintains a good working relationship with the ATF.

System of Prosecution: One Assistant District Attorney is assigned to arson. Arson keeps him busy almost full-time, although occasionally he will be assigned other cases to fill slack time. The attorney is available for case development and investigative assistance.

*All fires.

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ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
Creation of Special Investigative Unit(s)		X	

The city has maintained a fire investigator for many years. Five years ago they increased the number to three, then to four, then back to three. The grant was then received and the funds added four police personnel and two county members. At the end of the grant the squad composition changed and there are now six fire investigators, the city has just approved the use of two police detectives when the need arises, and the county remains available to assist upon re-request.

The squad has collaborated with other investigative units on occasion. During the grant, the squad worked with insurance investigators from Kansas City and private investigators from a Minnesota law firm.

The squad also conducts surveillance based on information from informants.

Data - Intelligence System Development			X
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While project data is kept manually, reports are submitted to the Kansas Bureau of Investigation and the State Fire Marshal. The project receives monthly printouts of their UFIRS data. The police are given the number of arsons for their computerized UCR reporting.

Equipment and Laboratory Support		X	
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Laboratory support is provided by a private laboratory for a yearly flat fee of \$600. The laboratory provides this low fee because it takes a tax deduction on the services provided. The lab's chemist is well qualified for court testimony. The arson squad also has access to the police photography laboratory. The grant funds provided walkie-talkies, office equipment; slides, films, and books for training; evidence collection materials; and photographic equipment.

Training Support		X	
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Received by Investigators: Investigators and the prosecutor attended USFA training and seminars using grant funds. Fire investigators received (approx.) 32 hours of police training. Each year from the beginning of March through the second week of April, the fire department conducts arson awareness training for all department personnel. This program has been continued over the past ten years. They are presently increasing arson awareness training given to fire officers.

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
Public Information Activities			X

Local insurance companies run T.V. and radio spots on arson. The state operates a hotline and reward program.

Juvenile Education and Treatment			X
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Investigators have given talks on arson at all of the city schools

Other Preventive Measures			X
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At each arson site posters are displayed on three sides of the building advertising the state hotline and reward system.

State: New Jersey
Area Served: Newark
Population: 382,000
Land Area: 24 sq. miles
Grant Recipient: Newark Fire Department
Budget: \$222,222
Duration: December 1, 1979 - May 31, 1981
Contact: Alan Zalkind, Office of Criminal Justice Planning
Tel. No: (201) 624-3933

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget(1978): \$18,572,119
Police Personnel: n/a # Fire Personnel: n/a Arson Inv. Budet (1978): \$253,499
Powers of Fire Investigators:
Arson squad investigators have police powers while on duty.

FIRE DATA CENTRAL

Total Fires: 7,395
Arson Investigations: 2,073
Fires Attributed to Arson: 1,857
Estimated Dollar Loss: N/A
Deaths: 46 (1978) civilian n/a firefighter n/a
Injuries: n/a civilian n/a firefighter n/a

Reporting Period: 1980
Criteria for Investigation:
The Arson Squad responds automatically to multiple alarm and fatal fires. Upon request of the suppression officer in charge at the fire scene.

ARSON INVESTIGATION CAPABILITIES

Locus: Arson investigation in Newark is centered in the Fire Department's Arson Squad-technically the Bureau of Investigation.

Organization: The squad teams work a four-shift rotation which consists of ten-hour days and fourteen-hour nights. The day shifts report to a day commander (battalion chief) who reports to the Arson Squad commander. The night shift reports to the supervisor on call. The senior member of a team has decision-making responsibility for that team. All teams ultimately report to the day commander who assigns follow-up investigative work to members of the day staff.

Scope: Responsible for all criterion fires.

Police-Fire Roles: The Newark Police Department plays little role in arson investigation. It only becomes involved if a homicide or other major crime (in addition to arson) has occurred. The Arson Squad has utilized the help of the State Police on specific cases.

Links with Federal Agencies: The Arson Prosecutor has had a cooperative relationship with ATF, working together on a RICO prosecution involving arson. In addition, the Arson Squad has utilized the help of ATF and the FBI on specific cases.

ARSON INVESTIGATION CAPABILITIES (continued)

System of Prosecution: The Essex County prosecutor has assigned one assistant prosecutor to be full-time arson prosecution coordinator. This has improved the Arson Squad's access to the prosecutor's office. Although all cases must go through the arson prosecution coordinator, this person does not prosecute all arson cases. Other attorneys in the office also handle routine arson cases. Arson-murder prosecutions are handled in the homicide unit of the Prosecutor's office rather than in the Arson Unit.

ARSON CONTROL INITIATIVES

	ACAP Contribution		
	Total	Partial	None

Formulation of Task Force		X	
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A citywide advisory council on arson has been established. The objective of this advisory council is to coordinate the public/private anti-arson effort. The chairman is the city's business administrator, the co-chairmen are the police director and the fire director. Other members of the council include the Director of Health and Welfare (for advice on code enforcement), the Corporation Counsel (for legal advice), and the Director of the Department of Engineering (for building demolition issues). Insurance industry and community representatives are also involved.

Creation of Special Investigative Unit(s)		X	
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Arson Squad. The Newark Arson Squad expanded its investigative capabilities, with the addition of 7 new investigators, to a total of 23 investigators. Some of the additional investigators have been used to perform "paper chases" which were rarely done with the previous low level of staffing.

Prosecution. The designated coordinator of arson prosecution (an assistant prosecutor) has the assistance of a prosecutor's investigator. Together they comprise the Essex County arson prosecution and investigation unit. Their mission is to coordinate arson prosecution countywide, including Newark. The creation of the prosecutor's arson unit has provided the Newark Arson Squad with a regular contact person in the prosecutor's office. Previously, there had been difficulty in achieving access to the prosecutor.

Data - Intelligence System Development		X	
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An arson information management system (to be used for combined incident reporting and investigation) and arson predictive system is in development. The data/early warning system is ultimately the responsibility of the Executive Director of the Newark Office of Criminal Justice Planning. The objective of the system will be to produce a regular report for the Arson Squad on suspicious/incendiary fires and high-risk properties. The system will combine data from the police department computer and the city computer. The police data includes offense and fire incident information. The city data includes tax and building stock information. Building code information is not computerized, however.

ARSON CONTROL INITIATIVES (continued)

	ACAP Contribution		
	Total	Partial	None

Equipment and Laboratory Support

X

The Arson Squad purchased additional office equipment and investigative tools. No laboratory equipment was purchased. The Squad uses the Newark City Police lab, located in the same building as the Arson Unit. Due to the establishment of a state Arson Strike Force, all arson analysis in the future will be done by the state laboratory.

Training Support		X	
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Received by Investigators: Once a man is assigned to the Arson Unit, he is enrolled in the Essex County Police Academy for key parts of that training: squad laws of arrest; rules of search and seizure; use of firearms; and Basic Police Practices. In addition, the Attorney General's office provides an arson investigation course which is equivalent to the 94-hour National Fire Academy course. All members of the Arson Squad have attended this course.

Received by Investigators: Newark Arson Squad investigators have assisted in the training of other arson squads/investigators in New Jersey. This was an effort to disseminate the investigation expertise of Newark investigators to other parts of the state whose investigators have received little training.

Received by Prosecutors: Arson Coordinator has completed two NCDA courses in arson prosecution.

Public Information Activities		X	
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There were two public information campaigns in Newark, one publicly funded and one privately funded.

Arson Squad: The Arson Squad purchased publicity services and supplies to advertise its arson hotline and reward fund. The Arson Squad also published a newsletter. Sent to every fire department in New Jersey, it contained a history of the Newark Arson Squad, statistics, and information about techniques.

Arson Awareness Committee. Part of the privately-funded Project Pride, this program targetted juvenile arsonists, using general publicity techniques of TV/radio spots, bus placards, billboards, talk shows, and speakers in the schools. Coordinated by the Essex County assistant prosecutor in charge of arson, Project Pride's anti-arson efforts were countywide, but focused on Newark and its environs. The committee also plans educational seminars and neighborhood intervention teams trained to spot arson early warning signs.

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
Mobilization of Neighborhood Groups			X

The Newark Coalition for Neighborhoods is a community group with an active Arson Project. This project is involved with "paper chase" property, tax, and utility research in an effort to establish the pattern of arson-for-profit in Newark. There has been little interaction between NCN and the Prosecutors/Fire Department/Arson Squad. In a rare example of cooperation, however, NCN notified the Arson Squad of several high-risk buildings. The Arson Squad proceeded to alert the FAIR plan which cancelled the insurance on the properties.

NCN is also working with the New Jersey Tenant's Association to pass a bill providing tenants with access to insurance information.

Juvenile Education and Treatment	ACAP Contribution		
	Total	Partial	None
Juvenile firesetters are processed through the Youth Aid Bureau in the Police Department. There is no Fire Department or Arson Squad involvement with such youths.			X

Fire prevention is offered in the city's schools, under the guidance of the Bureau of Combustibles. The "Learn Not to Burn" curriculum is part of this school's fire education program.

The Newark Arson Squad and the Essex County Prosecutor's Office Arson Squad are working with Project Pride to develop an arson education and awareness program for juveniles.

OTHER PREVENTIVE MEASURES	ACAP Contribution		
	Total	Partial	None
A Newark ordinance requires smoke alarms in multi-family dwellings. There is difficulty, however, with enforcement.			X

State:	California
Area Served:	City and County of San Francisco, Fire Department
Population:	665,000
Land Area:	49 sq. miles
Grant Recipient:	Fire Department
Budget:	\$216,222
Duration:	18 months
Contact:	Charles Radford
Tel. No:	(415) 861-8000, ext. 309

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION			
# Police Depts.:	1	# Fire Depts.:	1
# Police Personnel:	n/a	# Fire Personnel:	n/a
Fire Service Budget:		83,904,449(1980)	
Arson Inv. Budget:		n/a	

Powers of Fire Investigators:
Fire investigators are peace officers.

FIRE DATA		Reporting Period: 1979-80
Total Fires:	8,354	Criteria for Investigation: When suppression officer cannot determine cause or believes it to be incendiary, or whenever there is a multiple alarm fire or a fire resulting in death or serious injury.
Arson Investigations:	925	
Fires Attributed to Arson:	540	
Estimated Dollar Loss:	\$2,729,706	
Deaths:	2 civilian 1 firefighter	
Injuries:	n/a civilian firefighter	

ARSON INVESTIGATION CAPABILITIES
Locus: Fire department was recipient of grant, but both police and fire department are involved in arson investigation.

Organization: The Fire Department maintains a Cause-and-Origin Section consisting of seven fire investigators and their commander. The Police Department has two inspectors assigned to the Criminal Investigations Section. Two fire investigators work with the inspectors on a rotating basis.

Scope: All fires that meet the criteria for investigation.

Police-Fire Roles: Police-fire roles are distinct although fire investigators do work with police in the Criminal Investigations Section. However, this is primarily for training purposes. The Fire Department's Cause and Origin Section is responsible for cause-and-origin determinations while the Police Department's Criminal Investigations Section is responsible for follow-up investigations.

System of Prosecution: There is a designated arson prosecutor in the San Francisco District Attorney's office who becomes involved with cases from their earliest stages. He responds to multiple claims and fatal fires whenever they occur. The grant provided for an investigator in the D.A.'s office to assist in arson investigation.

	ACAP Contribution		
	Total	Partial	None
<u>ARSON CONTROL INITIATIVES</u>			
<u>Formulation of Task Force</u>		X	
The Fire Chief is chairman of the Task Force. The Task Force oversees investigation and prosecution efforts. Its vice-chairman is the designated arson prosecutor. In practice, the Task Force functions as three separate units: the Law Enforcement and Prosecution Division; the Related Industries Committee; and the Community Support Committee. Each of the units has proceeded separately. The Law Enforcement and Prosecution Division considered policies and procedures relating to investigation; the Related Industries Committee considered public awareness strategies and developed an arson-for-profit seminar for insurance adjusters; and the Community Support Committee was involved in establishing a juvenile firesetters program under a grant from the U.S. Fire Administration.			
<u>Creation of Special Investigative Unit(s)</u>		X	
The structure of the investigative units was in place prior to the grant award. Under the grant, coordination of fire and police personnel was emphasized. Fire investigators were assigned to work with the police inspectors in the Criminal Investigations Section. A photographer was hired under the grant to be on 24-hour-day call to respond to fire scenes with the investigators.			
<u>Data - Intelligence System Development</u>		X	
Under the grant a systems analyst/programmer was brought in on a contractual basis to adapt current arson programs to new programs being developed by the U.S. Fire Administration.			
<u>Equipment and Laboratory Support</u>		X	
A van, radios, and a portable vapor analyzer were purchased under the grant. San Francisco uses ATF's laboratory for analysis of its samples. However, due to the elimination of ATF, other facilities will have to be found.			
<u>Training Support</u>		X	
The lieutenant in charge of the Cause and Origin Section provides in-service training of fire investigators. One of the police inspectors gives a two-hour course to all police recruits on what to look for at fire scenes. On-the-job training is provided to fire investigators by pairing them with police investigators.			
The Related Industries Committee of the Task Force provided seminars to public and private sector personnel involved in arson detection and investigation.			

	ACAP Contribution		
	Total	Partial	None
<u>ARSON CONTROL INITIATIVES (continued)</u>			
<u>Public Information Activities</u>		X	
The Task Force sponsored a number of public information activities. A hotline was implemented by the Chamber of Commerce two years prior to the grant. However, it achieved little success.			
<u>Juvenile Education and Treatment</u>		X	
The Task Force Community Support Committee implemented a "Learn Not to Burn" campaign in the schools and was instrumental in obtaining a U.S. Fire Administration grant for a juvenile firesetters treatment program.			

State: Ohio
Area Served: City of Dayton (with plans for county-wide expansion)
Population: 300,000
Land Area: N/A
Grant Recipient: Dayton Fire Department
Budget: \$213,769
Duration: 2/80 - 2/81
Contact: James Smith, Fire Protection Engineer
Telephone No.: (513) 225-5344

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget: \$13,192,000
Police Personnel: n/a # Fire Personnel: n/a Arson Inv. Budget: \$285,278
Powers of Fire Investigators: Investigators are sworn Sheriff's Deputies.

FIRE DATA

Total Fires: <u>6210</u>	Reporting Period: <u>1980</u>
Arson Investigations: <u>685</u>	Criteria for Investigation:
Fires Attributed to Arson: <u>510</u>	Multiple alarm; arson
Estimated Dollar Loss: <u>\$2,489,923</u>	suspected by the District
Deaths: <u>6</u> civilian <u>0</u> firefighter	Chief; Any death or serious
Injuries: <u>0</u> civilian <u>0</u> firefighter	injury.

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire-police Arson Abatement Unit housed in Fire Dept. headquarters under the Fire Prevention Bureau.

Organization: Two Dayton fire investigators, one Dayton police detective, one Sheriff's Deputy and one Miamisburg fire investigator report to an investigative supervisor (lt.) who commands the unit.

Scope: Responsible for structural fires only. (District Chiefs determine cause of vehicle fires.) The unit functions in Dayton and Miamisburg and provides assistance in determining cause upon request from other jurisdictions.

Police-Fire Roles: Roles of police and fire investigators are interchangeable on all cases.

Links with Federal Agencies: Close relationship with local ATF agent.

System of Prosecution: Horizontal prosecution but a single designated prosecutor interacts with arson investigators and provides assistance to prosecutors assigned to arson cases.

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ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>			X
A task force was created concurrent with ACAP to develop arson control recommendations. Formally disbanded after completion of plan but have since met informally to review progress. Members included representatives of public agencies, community groups and banking and insurance industries, chaired by the public relations director of a local radio station (WHIO). Meetings are conducted as public hearings and included formal presentations. Task Force operations reportedly increased the visibility of the arson problem and enhanced communications.			
<u>Creation of Special Investigative Unit(s)</u>		X	
The arson unit existed prior to ACAP but two non-Dayton members of the squad and one Dayton fire investigator have been supported by grant funds. Unit planned to operate county-wide but has yet to receive sufficient local support to permit full county operations.			
<u>Data - Intelligence System Development</u>			X
The unit operates with a manual information system consisting of a two-part investigation form for preliminary and supplementary case data. Through a card file system, reports can be retrieved by location and name of owner, occupant and suspect. Unit is also responsible for completing police department incidence and arrest reports in arson cases and can input these data directly to the police records section.			
<u>Equipment and Laboratory Support</u>		X	
Acquisition of a gas chromatograph by the sub-state regional lab (located in Dayton) has reduced the unit's reliance on the state lab facility and reportedly shortened the turnaround time for lab analysis. ACAP also provided equipment for an in-house photography lab and a vehicle and office equipment for the unit's investigators.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Training Support</u>		X	
Received by Investigators: All investigators had received basic training in fire and arson investigation prior to joining the unit. Some had also been trained in bomb/firebomb investigation. All unit members received 367 hours of training at the Sheriff's Academy in order to become sworn law enforcement officers. Selected members received other specialized or refresher training courses more recently.			
Delivered by Investigators: Unit members have trained firefighters and line officers in detection in both Dayton and surrounding communities. The unit has also presented three basic courses in fire/arson investigation to 75 firefighters and a 40 hour course in advanced investigation to 40 fire personnel.			
<u>Public Information Activities</u>	X		
The Fire Department's Public Education Officer has retained the services of an advertising firm to develop a comprehensive campaign against arson including radio and TV PSAs, talk shows, pamphlets, newspaper ads and press releases. Signs have been placed on burned buildings to advertise the local arson hotline and statewide reward fund, both of which have been in operation for about a year.			
<u>Mobilization of Neighborhood Groups</u>			X
City Office of Neighborhood Affairs maintaining regional offices with resident advisory committees which help set policy in neighborhood revitalization and arson prevention. Priority boards assist in code enforcement and other housing maintenance activities.			
<u>Juvenile Education and Treatment</u>		X	
The public education officer operates a "Learn Not to Burn" program in all the city's junior and senior high schools. His assistant, who is grant-funded, deals informally with children who have firesetting histories and their parents. Two shows about the dangers of children playing with matches have been aired on TV.			

ARSON CONTROL INITIATIVES (continued)

ACAP Contribution
Total Partial None

Other Preventive Measures

A Nuisance Abatement Program is operated by the City's Division of Building Inspection. This program enables the city to have fire-damaged buildings boarded up within 3-5 days of a complaint, or to force owners to express their intent with regard to vacant properties (e.g. rehabilitate, donate to city). The Task Force has recommended legislation at both the state and local level to eliminate arson-for-profit incentives present in insurance and banking practices.

Several neighborhood revitalization areas have been targeted for concentrated attention. The City-Wide Development Corporation coordinates public and private funding of revitalization efforts. Activities include a program of low-interest home improvement loans.

State: Wisconsin
Area Served: City of Milwaukee
Population: (1978) 620,160
Land Area: 96 sq. miles
Grant Recipient: Fire and Police Commission, City of Milwaukee
Budget: \$212,222
Duration: 18 months
Contact: Timothy Schoewe
Tel. No: (414) 271-8788

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget: n/a
Police Personnel: n/a # Fire Personnel: n/a Arson Inv. Budget: n/a

Powers of Fire Investigators:

Fire Department personnel have no police powers. Detectives in Police Department have full police powers.

FIRE DATA

Total Fires: 5,571
Arson Investigations: n/a
Fires Attributed to Arson: 362
Estimated Dollar Loss: \$1,199,846
Deaths: n/a civilian firefighter
Injuries: n/a civilian firefighter

Reporting Period: 1980
Criteria for Investigation:
Whenever battalion chief reports a fire is of incendiary origin, or that a structural fire with damage in excess of \$500 is of undetermined origin, or when the fire has caused a death or serious injury.

ARSON INVESTIGATION CAPABILITIES

Locus: Fire Department maintains a fire investigation unit. The Police Department's Detective Bureau also has responsibility for arson investigation. While operated as strictly separate units, the investigators from both departments cooperate in investigation.

Organization: The Fire Department's Fire Investigation Unit consists of three investigators under the supervision of a lieutenant. In the Detective Bureau of the Police Department, two detectives are assigned to arson cases. They report to a lieutenant and directly to the Inspector in charge of the Bureau as well. Other detectives and patrol officers may investigate arson cases as well.

Scope: The Fire Investigation Unit responds to fires meeting the criteria for investigation. The detectives respond to all fires where the Fire Investigation Unit, upon a visual examination, feels the fire may be incendiary. Police patrol units respond to vehicle fires.

ARSON INVESTIGATION CAPABILITIES (continued)

Police-Fire Roles: Police and fire roles are distinct but exercised cooperatively. The Fire Investigation Unit performs visual examinations of scenes and then will process scenes jointly with the detectives. Detectives are in charge of the investigation but the fire investigators often assist in both scene work and follow-up investigations.

Links with Federal Agencies: Representatives of ATF and the FBI are members of an investigative-level task force which meets weekly.

System of Prosecution: Vertical prosecution of all criminal cases in Milwaukee County. Full-time arson prosecutor funded under the grant.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formulation of Task Force</u>			
A task force was created headed by the mayor. A number of subcommittees of the task force were active over the period of the grant, especially the training and public information subcommittees. The training subcommittee was involved in setting up the training for members of county fire and police departments.			

<u>Creation of Special Investigative Unit(s)</u>	X
Prior to the ACAP grant arson investigation was done by the Milwaukee Police Department. In earlier years the Fire Department had had an investigation unit but it was disbanded. Under the ACAP grant three investigative positions were funded. The two full-time arson detectives in the Milwaukee Police Department, plus time for additional personnel, were funded under the grant.	

<u>Data - Intelligence System Development</u>	X
A mini-computer to be used for arson information was funded by a state grant.	

<u>Equipment and Laboratory Support</u>	X
Some equipment for scene processing was purchased with grant funds. No laboratory support was included in the grant.	

<u>Training Support</u>	X
Training provided under the grant included training for fire investigators, additional fire personnel, police detectives, and additional police personnel. In addition, fire and police personnel from other jurisdictions within the county received training.	

<u>Public Information Activities</u>	X
The Wisconsin Arson Insurance Council planned to fund a hotline for the Milwaukee area.	

State: New York
Area Served: Syracuse/Onondaga Cty. (received their mobile lab 2 weeks ago and have already used it to assist in a Madison County investigation)
Population: 183,334 (1975 city) - 474,691 (county)
Land Area: 25.8 sq. miles (city) - 794 sq. miles (county)
Grant Recipient: Syracuse/Onondaga Arson Control Program, Office of Federal and State Aid Coordination, Rm. 225, City Hall, Syracuse, NY 13202
Budget: \$201,843
Duration: 9/80-6/81
Contact: Louise Birkhead, Director of Special Projects
Telephone No: (315) 473-5690

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION			
# Police Depts.:	n/a	# Fire Depts.:	n/a
# Police Personnel:	n/a	# Fire Personnel:	n/a
<u>Powers of Fire Investigators:</u>		Fire investigators do not have police powers.	

<u>FIRE DATA</u>	
Total Fires: 2,225 (Syracuse only)	Reporting Period: 1978
Arson Investigations: n/a	<u>Criteria for Investigation:</u>
Fires Attributed to Arson: 613	The county unit investigates upon request from the Chief of a volunteer dept.; the city unit investigates when a District Chief suspects arson.
Estimated Dollar Loss: \$3.75 million (Syracuse only)	
Deaths: 3 civilian n/a firefighter n/a (city and county)	
Injuries: civilian n/a firefighter n/a	

ARSON INVESTIGATION CAPABILITIES
Locus: Jointly staffed fire-police Arson Squads. The city squad is housed in the fire dept. (at DPS); the county squad is housed at the DA's office.
Organization: The city: 4 fire investigators; two fire investigator trainees; one police sergeant; part-time police investigator report to Fire Chief. The county: 2 fire investigators (+ 1 vacancy), 2 fire investigator trainees, 2 sheriff's deputies report to county fire control coordinator.

Scope: Responsible for all criterion fires and bombings.
Police-Fire Roles: Police assume primary investigative role where arson used to cover a crime (e.g., homicide, burglary).

Links with Federal Agencies: Only link is UCR reporting.
System of Prosecution: A Senior Assistant District Attorney trained in arson prosecution is project director of the county program. He, and two other prosecutors he trained, handle all arson cases, although does this not occupy them full time.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formulation of Task Force</u>			X
The county formed an Arson Task Force two years ago through a state grant to counties. This is an on-going entity which meets periodically to exchange ideas and render mutual aid. Represented on the Task Force are state, county and local law enforcement and fire agencies; the District Attorney; the insurance industry; and, the banking community.			
<u>Creation of Special Investigative Unit(s)</u>			X
Both arson squads existed prior to ACAP; grant funds were used to add two trainees each to both the city and county squads. The additional manpower was crucial to the city, as their three fire investigators had over 80 combined years of service and were nearing retirement. The team concept allows the squads to follow a case from cause and origin through to prosecution. The squads occasionally collaborate with insurance adjusters or investigators. Surveillance and patrol activities are conducted under emergency conditions; for instance, recently there have been arsons in one neighborhood and this area is patrolled 24 hours a day.			
<u>Data - Intelligence System Development</u>			X
Manual reports are kept on each investigation. Printouts are available with breakdowns on incendiary fires from the UFIRS data. While they have no early warning system, they have talked to staff in New Haven and will consider developing a similar system in the future. There is no special intelligence data system; however, they do "keep tabs" on 10-15 habitual firesetters.			
<u>Equipment and Laboratory Support</u>			X
Laboratory support is provided by the Syracuse Police Regional Crime Laboratory. ACAP funds were used to supplement the laboratory's capabilities by adding a chemist, a gas chromatograph, and thermal desorber for use in arson cases. The arson squads also received a mobile lab from ACAP which contains gas indicators, video and photographic equipment.			
<u>Training Support</u>			X
Received by investigators: The four investigator trainees have received apprenticeship training, and grant funds provide USFA (Maryland) training. The prosecutor trained investigators in a mock trial. The prosecutor was trained in arson pre-ACAP. City and county fire and police have received awareness and evidence preservation training. The ACAP Program Coordinator wrote the training materials and the Fire Department funded the effort.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Public Information Activities</u>			X
The project has extensive media activities, including numerous TV and radio talk shows and PSAs; newspaper coverage; and TV spots advertising the hotline on commercial, cable, and PBS stations. Insurance companies are using posters with the hotline number. In addition, they are looking into the possibility of doing a TV documentary on arson.			
<u>Mobilization of Neighborhood Groups</u>			X
The project has had considerable success in this area. There is a neighborhood crime watch program. The Fire Service has emulated Seattle's Program and goes into neighborhoods to talk to people and pass out information. The Fire Department funded a 16 page arson booklet, which the Program Coordinator designed and wrote, using photographs of Syracuse and tailoring the booklet to reflect its problems. The booklet not only outlines their neighborhoods, but tells people what they can do. They also work with churches. The Program Coordinator's writing and graphic skills allow the Project to develop professional packages at a reasonable cost. The project goes beyond literature and distribution to actual work with citizens. For instance, a neighborhood which is beginning to become revitalized has recently fallen victim to a rash of fires. A representative of a local organization came to the project to ask what they could do about the arsons. Banking involvement was procured, when an area bank agreed to open its facilities in the evening for neighborhood meetings. These meetings were specifically in response to arson.			
<u>Juvenile Education and Treatment</u>			X
The county runs a juvenile counseling program staffed by volunteers, including a psychologist. The city also has a counseling program operated by the Chief of Fire Prevention, and funded by the Fire Department. The arson project has met with school superintendents and will start an arson program beginning with four inner city schools. The target group is students from 6th grade through the second year of high school.			
<u>Other Preventive Measures</u>			X
A number of activities are occurring in this area. City building codes continue to be strictly enforced, with 10 fire dept. inspectors out every day. As a result of a disastrous arson in a foster home, building regulations in such houses are enforced vigorously. Every Saturday the fire service has teams check vacant and boarded-up buildings; open buildings are reported to the Dept. of Buildings which in turn gives the owner 48-hours notice to close them up. If the owner does not respond, it takes only 6-7 working days for the Dept. to board it up. Legislation has been passed giving public investigators access to insurance records when arson is suspected. The arson project has discussed stenciling the hotline number on arson sites, a method used in Seattle. This method is preferred to posters which are often stolen by juveniles.			

State: Nebraska
Area Served: Omaha (neighboring towns have volunteer fire depts., and therefore fall under the jurisdiction of the State Fire Marshal. However, they are represented on the task force and use Omaha's hotline, despite availability of state hot line)
Population: 346,929 (1970)
Land Area: 81 sq. miles
Grant Recipient: City of Omaha, Public Safety Office, 1819 Farnam Street, Omaha, Neb.
Budget: \$200,000
Duration: February 1, 1980 - August 31, 1981
Contact: James C. Thompson, Public Safety Office
Telephone No.: (402) 444-50007

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget: n/a
Police Personnel: n/a # Fire Personnel: n/a Arson Inv. Budget: n/a
Powers of Fire Investigators: Despite law enforcement training, they do not have police powers, although the Task Force is working for legislative change that would provide these powers.

FIRE DATA

Total Fires: <u>n/a</u>	Reporting Period: <u>1978</u>
Arson Investigations: <u>504</u>	<u>Criteria for Investigation:</u>
Fires Attributed to Arson: <u>349*</u>	The chief of the suppression
Estimated Dollar Loss: <u>\$1.3 million</u>	unit makes the determination
Deaths: civilian <u>n/a</u> firefighter <u>n/a</u>	to call in the arson unit
Injuries: civilian <u>57</u> firefighter <u>61</u>	while the fire is still in
	progress.

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire-police Arson Investigation Unit forming the Arson Bureau; housed in the Fire Dept.

Organization: Three police officers and three fire captains report to a supervising fire Battalion Chief. The arson bureau ultimately reports to the Public Safety Director who supervises both the police and fire depts.

Scope: Responsible for all types of arson, bombings, and false alarm investigations.

Police-Fire Roles: The arson unit follows all investigations through to prosecution, except for homicides. Where a homicide is involved police take charge of the investigation, although the unit still investigates the arson aspect of the case.

Links with Federal Agencies: The unit maintains excellent cooperation with the U.S. Attorney's office, the FBI, and ATF. Cooperative efforts developed during a successful investigation of a multistate arson ring. Subsequently, the FBI and the ATF have participated on the Task Force and supported state legislation to give arson investigators peace officer status.

System of Prosecution: A deputy county attorney handles all arson cases. This accounts for about 80% of his workload. He is also on the Task Force.

*Arson and suspicious fires.

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ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>			X
The Task Force was created by the Mayor in 1977, as an arson advisory force and to develop a consensus among diverse groups. Members include representatives of police and fire depts.; the special prosecutor; the insurance industry; the Chamber of Commerce; the city executive branch; the FBI and ATF; neighboring volunteer fire depts.; the County Criminal Justice Commission; Sheriffs Dept.; State Fire Marshal; city planning office; local businesses; and private citizens.			
<u>Creation of Special Investigative Unit(s)</u>		X	
The arson unit existed prior to ACAP, composed of two fire dept. investigators, and a 1978 LEAA grant provided two police officers. ACAP funds were used to transfer the two police investigators to the unit, and to add one fire-police team. The unit conducts surveillance activities with undercover vehicles.			
<u>Data - Intelligence System Development</u>		X	
ACAP funds were provided to study conversion to computers. They hope to modify the use of the award to actual computerization. They have planned a limited basic computer system which is compatible with the police computer. Assistance has been received from the Douglass County Data Programmer.			
<u>Equipment and Laboratory Support</u>		X	
Laboratory support is provided by a local university and private laboratory. In-house capabilities are limited to a photography laboratory. Some basic investigatory and forensic equipment has been purchased, as well as more photographic and backup equipment for individual vehicles. The project, using ACAP funds, substituted a small mobile home for the van originally proposed. The arson unit has found it easier to store equipment in individual vehicles; the grant vehicle is unmarked and is used for undercover operations.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Training Support</u>		X	
Received by Investigators: The four "new" investigators received training paid for with grant funds. Fire investigators all received 120 hours of police academy training; police investigators attended the NFA course. ACAP funded training is planned for the special prosecutor.			
Delivered by investigators: Although training for line fire and police was planned, manpower shortages have precluded it. They are trying now to solve logistical problems, and develop a course. This training will probably be provided through the Training Bureau of the Fire Division.			
<u>Public Information Activities</u>			X
The Arson Awareness Week has turned into an annual event supported by the insurance industry and some city funds. The local insurance agents association also funds a hotline. Posters, a \$5,000 reward fund, and some advertising are sponsored by insurance companies. An informant's fund is supported by the firefighters' union, insurance companies and other organizations.			
<u>Mobilization of Neighborhood Groups</u>			X
Little activity in this area, due to lack of money and manpower.			
<u>Other Preventive Measures</u>			X
The unit is involved in two lines of effort. First, the Task Force introduced and gained support for LB205 which would give arson investigators peace officer status, provided they have received basic Law Enforcement training, limited to the time they are on duty and conducting an investigation. Secondly, the project hopes to change a local procedure to allow the Fire Division to require that abandoned buildings be boarded up within 48-72 hours, or the city will do it and charge the owner through a lien. They hope such a procedure will eliminate multiple fires in vacant or burned out buildings.			

State: Missouri
Area Served: Kansas City
Population: 530,000
Land Area: 316.8 sq. miles
Grant Recipient: Kansas City Police Department
Budget: \$180,425
Duration: 18 months and extensions
Contact: Capt. Billie T. Moran
Tel. No: (816) 234-5319

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget: 24,751,672
Police Personnel: # Fire Personnel: 907 Arson Inv. Budget: 327,803
Powers of Fire Investigators: (Fire Department only)
Fire department personnel are not peace officers. Police detectives of course have full police powers.

FIRE DATA

Total Fires: 2,145 structural fires
Arson Investigations: N/A
Fires Attributed to Arson: 705
Estimated Dollar Loss: \$2,427,020 (FY80)
Deaths: 37 civilian firefighter
Injuries: 416 civilian 57 firefighter 359

Reporting Period: 1980
Criteria for Investigation:
The FD responds at the request of the suppression officer in charge. It also responds automatically to all structural fires over \$2,000 that occur on the night shift. The Arson Control Unit of the Police Department responds automatically to all multiple claims and all fatal fires and at other times at the request of the fire investigator or fire suppression officer.

ARSON INVESTIGATION CAPABILITIES

Locus: Arson Investigative element of the Kansas City Fire Department, Fire Prevention Bureau, and Arson Control Unit of the Kansas City Police Department.

Organization: Five fire inspectors from the Fire Prevention Bureau of the Kansas City Fire Department are assigned to do investigations. The Arson Control Unit of the KCPD consists of eight detectives, two sergeants and a captain. The Unit is one of six units in the Crimes Against Property Division of the Investigations Bureau.

Scope: The Fire Prevention Bureau performs visual examination of scenes and may assist in scene work. The Arson Control Unit processes fire scenes, conducts investigations, maintains arson intelligence, and prepares cases for prosecution.

Police-Fire Roles: Fire and police roles are distinct. Cooperation between fire suppression personnel and the ACU has been growing steadily which has tended to diminish the scope of the role of the Fire Prevention Bureau in some cases.

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ARSON INVESTIGATION CAPABILITIES (continued)

Links with Federal Agencies: Good cooperation with ATF is reported.

System of Prosecution: Vertical prosecution of arson cases by full-time arson prosecutor. (Regular caseload of office is processed by a horizontal system.)

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formulation of Task Force</u>		X	
The Arson Control Coordinating Committee was originally established as the grant planning committee. Its chairman is the Captain of the KCPD Arson Control Unit. It has been active in developing media campaigns to enhance public awareness of arson and efforts to combat it.			
<u>Creation of Special Investigative Unit(s)</u>		X	
The old Arson and Bomb Unit of the KCPD was expanded to the present Arson Control Unit. It consists of eight investigators, two sergeants, and a captain, all paid for by the police Department. Under the grant, two secretaries were assigned to the Unit. The ACU personnel are well trained in arson investigation and perform all tasks related to investigations. The Police Evidence Technician often provides assistance at the scene.			
<u>Data - Intelligence System Development</u>			X
Prior to receipt of the grant, the KCPD acquired a word processor to be used as an automated arson modus operandi file. A comprehensive list of variables to be entered includes information on the fire ignition, insurance, suspect characteristics, and owner information.			
Beginning in 1979, regional arson intelligence meetings have been held monthly for the purposes of intelligence exchange. Participants include members of area fire departments, the Kansas and Missouri State Fire Marshal's offices, ATF, FBI, area police departments and county sheriff's offices, U.S. Postal Inspectors, and the Insurance Crime Prevention Institute.			
<u>Equipment and Laboratory Support</u>		X	
The ACAP grant provided funds for the purchase of a gas chromatograph exclusively for use in arson debris analysis. The grant also paid the salary of a full-time chemist to do arson work exclusively. The Fire Department purchased and equipped a van.			
<u>Training Support</u>		X	
Training was provided to members of the Arson Control Unit and to personnel involved in detection and prosecution as well.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Public Information Activities</u>		X	
The Arson Control Unit prepares press releases on major fires, and has encouraged, along with the Fire Department and the Insurance Information Institute, local television and radio stations to use material on arson developed by the Missouri Arson Advisory Board. A special arson awareness week was held which included a number of events designed to draw public attention and support for anti-arson activities.			
<u>Mobilization of Neighborhood Groups</u>		X	
Neighborhood groups in four of the city's five police districts were interested in the arson problem. A workshop was developed for delivery to the neighborhood groups that covered the arson problem, what the ACU and the Task Force are doing, and what the community can do to help reduce arson. Workshops were also conducted with a citywide coalition of neighborhood organizations.			
The aim of the work with the community groups is to develop lines of communication so that residents will feel free to talk with the investigators when an arson occurs.			

State: Missouri
Area Served: Springfield (As a courtesy, they have given neighboring towns advisory assistance)
Population: 156,000
Land Area: 63.2 sq. miles
Grant Recipient: City of Springfield Police Dept., 321 E. Chestnut Expressway, Springfield, Missouri 65807
Budget: \$172,086
Duration: 1/80 - 7/1/81
Contact: Wm. T. Penland, Asst. Fire Marshal
Telephone No: (417) 864-1041

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: one # Fire Depts.: one Fire Service Budget: 1980: \$5,349,459
Police Personnel: 235 # Fire Personnel: 209 Arson Inv. Budget: 1980: \$71,520
Powers of Fire Investigators:

Fire Investigators are commissioned police officers, having completed a condensed and accelerated version of the basic police academy training.

FIRE DATA

Total Fires: 1,054
Arson Investigations: 268
Fires Attributed to Arson: 96
Estimated Dollar Loss: \$2,475,743
Deaths: * civilian 2 firefighter 0
Injuries: * civilian 6 firefighter 4

Reporting Period: 1979

Criteria for Investigation:

Fire Suppression officer in charge feels something is suspicious; any large dollar loss; multiple alarm fire; on investigator's own initiative; call from the police.

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed police-fire Arson Squad housed in the Fire Dept.

Organization: Two fire marshals and one police detective report to the Assistant Fire Marshal who commands the unit. He, in turn, reports to both the Chief of Police and the Fire Chief.

Scope: Responsible for all criterion fires. The Fire Dept. has a separate Bomb Squad and the arson squad's involvement is limited to post-blast examinations.

Police-Fire Roles: The arson squad always retains primary responsibility where arson is involved, although police will also participate if another crime is involved.

Links with Federal Agencies: While the squad occasionally works with the FBI, they are more frequently involved with the ATF.

System of Prosecution: There is a special prosecutor for arson. He is available for case development, participates on the Task Force, and is an integral part of the project.

*All fires.

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ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>			<u>X</u>
A Task Force was created concurrent with ACAP to obtain input from varied agencies.. The project attributes its success to the strong team effort which has evolved. Task Force members include representatives of the fire and police departments, the city council, the crime laboratory, some private citizens, and the special prosecutor. Meetings are held monthly. Part of the grant involved a media campaign, but as the Task Force had no in-house expertise it organized a Citizen's Advisory Committee of, local media and advertising people to assist them.			
<u>Creation of Special Investigative Unit(s)</u>	<u>X</u>		
Prior to ACAP arson investigation efforts were fragmented. The Fire Prevention Bureau tried to handle investigations but had many other duties and lacked expertise. The grant funds permitted the organization of the arson squad to concentrate specifically on arson. The chances are good that local funding will continue to support the squad as of July 1, 1981. The squad works closely with the ATF, the police, the prosecutor, insurance adjusters, and several local law firms.			
<u>Data - Intelligence System Development</u>			<u>X</u>
The squad submits UCR data and other case information to the police Crime Analysis Division. The division computerizes the information, and will do arson profiles for the squad. The squad plots investigations on a city map to facilitate detection of fire patterns			
<u>Equipment and Laboratory Support</u>		<u>X</u>	
Laboratory support has been provided by the police Region II Laboratory. ACAP funds provided basic investigation equipment, a crime scene van, and office equipment.			
<u>Training Support</u>		<u>X</u>	
Received by Investigators: Investigators have been completely cross-trained and have received additional investigation training, including an NFA course.			
Delivered by Investigators: The special prosecutor has been trained with ICAP funds, and has received in-house instruction from the arson squad. The line police officers have all received one-day training on the arson squad, arson detection, and assistance they can provide to the squad. Line firefighters receive arson detection and evidence preservation training on an on-going basis.			
<u>Public Information Activities</u>	<u>X</u>		
The arson squad lectures at various local events and clubs. A series of T.V. and radio PSAs have been developed and are frequently aired free of charge. News coverage has been very good. The squad maintains high visibility within the community, and this coupled with a prominent office phone number has resulted in a number of tips. Information has been received by phone, through the mails, and on the street.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Juvenile Education and Treatment</u>			<u>X</u>
The squad works with the County Juvenile Justice Division, but has no separate effort in this area. Similarly, activities in the schools are focussed on fire prevention conducted by the Fire Prevention Bureau.			
<u>Other Preventive Measures</u>			<u>X</u>
An immunity bill appears likely to pass the legislature. The arson squad has had good results in having buildings torn down by making reports to the Division of Dangerous Buildings, a sub-division of the City Dept. of Regulations.			

State: Texas
Area Served: City of Houston (Intelligence and information network planned to include seven counties surrounding Houston)
Population: 2,000,000
Land Area: 600 sq. miles
Grant Recipient: Houston Fire Department
410 Bagby
Houston, Texas 77002
Budget: \$152,896
Duration: 2/1/80 - 7/31/81
Contact: Dennis Duckett, Senior Investigator, Arson Bureau
Telephone No.: (713) 222-3274

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget (1980): \$82.1 million
Police Personnel: # Fire Personnel: Arson Inv. Budget (1980): \$3.7 million

Powers of Fire Investigators:
Investigators are peace officers.

FIRE DATA

Total Fires: 4,484 (structure)
Arson Investigations: 2,027
Fires Attributed to Arson: 1,006
Estimated Dollar Loss: \$22.4 million
Deaths: 17 civilian n/a firefighter n/a
Injuries: civilian n/a firefighter n/a
Reporting Period: 1979
Criteria for Investigation:
o multiple alarm
o any injury
o call from fire suppression officer in charge
o receipt of fire department incident report listing cause as "unknown" (usually 2-4 days after fire)

ARSON INVESTIGATION CAPABILITIES

Locus: Arson Bureau operates within the Fire Department under the Fire Prevention Division.

Organization: The Arson Bureau is organized as follows:

Structure fires, day shift, weekdays: Weekday structure fire investigations are handled by three sector offices each with six investigators reporting to a senior investigator. The senior investigators in turn report to an Assistant Chief Investigator.

Structure fires, evening and night shifts, weekdays and weekends: Weekend and weekday evening structure fires are investigated out of the central office, with six investigators reporting to an Assistant Chief Investigator. After the initial investigation on a weekend or evening shift, the case is sent to the appropriate sector office for follow-up.

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ARSON INVESTIGATION CAPABILITIES (continued)

Special Units: The following special units operate from central office at all times:

- o Vehicle Squad (four investigators reporting to a senior investigator)
- o Intelligence (six investigators reporting to a senior investigator)
- o Polygraph (two operators)
- o Evidence (one investigator)
- o Records (two investigators reporting to a senior investigator)

Scope: The Arson Bureau is responsible for all criterion fires. However, investigators spend more time on heavy property loss and arson murder cases. The Bureau also provides investigative assistance on occasion to surrounding communities.

Police-Fire Roles: Pllice are involved only when there is a homicide or other major crime investigation.

Links with Federal Agencies: The Arson Bureau has an active relationship with ATF. They work with the FBT and IRS as needed.

System of Prosecution: The system of prosecution is basically horizontal. There is no arson specialization. Most cases go through the DA's intake and trial divisions. A small number of more complicated cases are handled vertically by the Special Crimes Division.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None

Creation of Special Investigative Unit(s)	_____	X	_____
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To enable investigators to work more closely with fire suppression forces and community residents, the Arson Bureau has been geographically decentralized to three sector offices during the day shift on weekdays. All sectors report reduced response time, improved morale among investigators, and significant reductions in the number of structural fires reported by suppression officers to be of "unknown" origin.

Data - Intelligence System Development	_____	X	_____
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Plans to develop an arson intelligence and information network linking Houston and seven surrounding counties have not yet been implemented due to delays in data system development. Network remains confined to informal case information exchange, as well as a developing name file, and an operating keyk map grid analysis to identify fire patterns. The Fire Department is in the process of purchasing software and CRTs for use of the intelligence network. A major objective is to have all counties submit expanded UFIRS incident reports to the Houston Fire Department computer system, thus creating a central arson intelligence clearinghouse.

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None

Equipment and Laboratory Support	_____	X	_____
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The Arson Bureau has purchased the following equipment:

Sector Offices: Office equipment and photography equipment.
Records Unit: Microform equipment (and rental of NCIC terminal).
Evidence Unit: Fingerprint analysis and evidence-handling equipment.

For laboratory support, the Houston police lab is available, but rarely used. ATF and FBI laboratories are also used on occasion.

Training Support	_____	_____	X
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Received by Investigators: A prerequisite for joining the Arson Bureau is completion of a 472-hour arson investigation course which includes much basic police instruction, since investigators are peace officers.

Delivered by Investigators: Investigators have provided some arson detection training to firefighters. Twelve hours training in arson detection is required for all firefighters.

Received by Prosecutors: Two assistant district attorneys have received NCDAT training in arson prosecutions.

Public Information Activities	_____	_____	X
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\$15,000 supplied by the Independent Insurance Agents of Houston for hotline publicity and reward funds. Coverage and visibility reportedly have been limited.

Mobilization of Neighborhood Groups	_____	_____	X
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No systematic action has been taken in this area, although sector offices have been able to develop generally closer relations with communities than existed before decentralization.

State: Arizona
Area Served: City of Tucson (project will affect a tri-county area in terms of (1) training delivered by unit (2) public education (3) investigation assistance (4) data collection)
Population: 311,400 (1978 estimate)
Land Area: 96.37 sq. miles
Grant Recipient: Tucson Police Dept., P.O. Box 1071, Tucson, Ariz. 85702
Budget: \$152,400
Duration: 2/80-3/6/81 (time extension)
Contact: Lt. Brice Fuller
Telephone No: (602) 791-4770

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: n/a # Fire Depts.: n/a Fire Service Budget: 1980: \$14,381,130
Police Personnel: n/a # Fire Personnel: n/a Arson Inv. Budget: 1980: \$95,000
Powers of Fire Investigators: Fire investigators do not have police powers.

FIRE DATA

Total Fires: 7975 Reporting Period: 1979
Arson Investigations: n/a Criteria for Investigation:
Fires Attributed to Arson: 495 Damage over \$5000; obvious arson;
Estimated Dollar Loss: * \$6,238,000 questionable origin; death; injury;
Deaths: civilian 8 firefighter 0 or explosives.
Injuries: civilian ** firefighter **

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire-police Fire Investigation Unit housed in the Police Dept. under the Detective's Division.

Organization: Three police officers and three fire prevention inspectors report to a supervising police Sgt. who in turn reports to a commanding police Lt.

Scope: Responsible for all criterion fires. While the police Bomb Squad is responsible for bomb explosions, the arson unit handles other types of explosions (e.g., natural gas explosions).

Police-Fire Roles: Unit handles all aspects of every fire investigation.

Links with Federal Agencies: Good working relationship with both the FBI and ATF. Joint efforts usually involve organized crime.

System of Prosecution: Three prosecutors are assigned to handle arson. Prosecutors help with case development and assistance is available 24 hours a day, they often are called to the scene of major fires.

*All fires

**Total injuries for all fires 85.

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ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>			X
The project does not have a task force; however, involved agencies do get together and discuss the project.			
<u>Creation of Special Investigative Unit(s)</u>		X	
The arson unit existed prior to ACAP and was a nationally recognized arson effort. Grant funds added a third investigative team, and made a police officer on loan from homicide into a permanent team member. The unit collaborates with insurance investigators frequently, and is sometimes called in to assist the State Fire Marshal investigate in neighboring towns.			
<u>Data - Intelligence System Development</u>		X	
ACAP funds provided a records clerk to handle police, fire, and prosecution records and to assist data collection from the tri-county area. Tucson collects data from the outlying areas and sends the data to the state where it is computerized (a state ACAP grant provided the computer). Printouts are then available to the jurisdictions upon request. While local records are not computerized, if the unit discovers something suspicious (e.g., a bar liquidating its liquor stock) it can compile complete background information on the person(s) or firm.			
<u>Equipment and Laboratory Support</u>		X	
Laboratory support is provided by the city/county police laboratory, for which grant funds provided a gas chromatograph. (Average turnaround time--3 days.) ACAP also provided a van, radios, office equipment, and audiovisual equipment.			
<u>Training Support</u>		X	
Received by Investigators: ACAP funds were used to train the new team, including the NFA course. Moreover, all investigators received additional arson investigation instruction. The prosecutors received the State Fire Marshal's training prior to the ACAP grant.			
Delivered by investigators: The arson unit has provided arson training to the police, fire, and prosecutorial personnel of neighboring jurisdictions.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Public Information Activities</u>		X	
A media campaign has been continued and expanded into the tri-county area. Included are T.V. and radio PSAs and specials, extensive newspaper coverage, and speaking engagements. State ACAP funds have provided a hotline and a reward system. Insurance funds have provided bus-boards advertising the hotline and reward system.			
<u>Mobilization of Neighborhood Groups</u>			X
Arson awareness has been incorporated into the Neighborhood Watch programs by distributing arson pamphlets at meetings and at a crime prevention display event.			

State: Nevada
Area Served: North Las Vegas

Population: 50,819 (1977)
Land Area: 34.6 sq. miles
Grant Recipient: City of North Las Vegas, 2200 Civic Center Drive,
North Las Vegas, Nevada 89030
Budget: \$128,497
Duration: 1/81 - 6/81
Contact: Bob Mills, North Las Vegas Fire Marshal
Telephone No: (702) 649-5811

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: one # Fire Depts.: one Fire Service Budget: \$2,181,624
Police Personnel: 94 # Fire Personnel: 82 Arson Inv. Budget: \$61,478

Powers of Fire Investigators: Fire investigators have peace officer status, once they have completed 120 hour basic training course.

FIRE DATA

Total Fires: <u>692</u>	Reporting Period: <u>1980</u>
Arson Investigations: <u>173</u>	Criteria for Investigation:
Fires Attributed to Arson: <u>79</u>	If line officers cannot determine
Estimated Dollar Loss: <u>\$221,000</u>	cause or find suspicious.
Deaths: civilian <u>0</u> firefighter <u>0</u>	Automatic response: <u>crime</u>
Injuries: civilian <u>4</u> firefighter <u>2</u>	involved; loss over \$1,000;
	injury or death

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire-police Arson Control Team is located in the Office of the Fire Marshal.

Organization: Two fire investigators report to the Fire Marshal. The two police detectives and one police identification technician report to a police supervisor.

Sc. Responsible for all criterion fires.

Police-Fire Roles: Fire investigators and the technician determine cause and origin, and conduct follow-up investigation. Police detectives counsel, prepare D.A. submissions, and assist on polygraph exams. In addition, non-unit police will assist upon request.

System of Prosecution: A deputy D.A. is assigned to arson (devote approximately 50 percent of his time). He is very active in the project and strategy. He attends 50 to 60 percent of the scenes. A second backup D.A. is also assigned.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>	_____	_____	<u>X</u>
A local county-based Task Force existed prior to ACAP. Concurrent with the grant, North Las Vegas initiated a new Regional Arson Control Council to coordinate efforts within the county. Membership includes: insurance; private and public investigators; school district representatives; business community; fire and police. Despite initial turf problems, the Task Force is now in operation.			
<u>Creation of Special Investigative Unit(s)</u>	_____	<u>X</u>	_____
Prior to ACAP there was no police-fire coordination. It is hoped that the ACAP project will bring about more police interest in arson, so the fire agency can concentrate on cause and origin. ACAP funds the assistant fire investigator's salary and overtime for the police detectives.			
<u>Data - Intelligence System Development</u>	_____	<u>X</u>	_____
The project has instituted NFIRS and will tie into either the city or Las Vegas/Clark County computer. They also participate in the Metro Intelligence data system.			
<u>Equipment and Laboratory Support</u>	_____	<u>X</u>	_____
The project utilizes the Las Vegas Metropolitan Police Crime Laboratory. ACAP provided a fully equipped Mobile Arson Command Unit; maintenance and report for the arson investigators' squad car; investigation and evidence equipment; a sniffer; and recording equipment.			
<u>Training Support</u>	_____	<u>X</u>	_____
Received by Investigators: City funds provided NFA three week training for one fire investigator. ACAP funds provided California Fire Service Academy training for five team members, as well as various seminars. Fire fighter and police patrolmen received (ACAP funded) the NFPA arson series training.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Public Information Activities</u>	_____	<u>X</u>	_____
The project receives extensive newspaper, TV, and radio coverage. TV spots are used. A hotline and reward system exist. A commercial artist turned the winning entry in the poster contest into a professional version for billboards and posters.			
<u>Other Preventive Measures</u>	_____	<u>X</u>	_____
ACAP funds are used for a Vacant Housing Program. Their clearance and rehabilitation efforts for dangerous buildings have been successful.			

State: Virginia
Area Served: City of Norfolk (with training and media support to the entire Southeastern Virginia region)
Population: 276,000 (Norfolk)
Land Area: 62 square miles (Norfolk)
Grant Recipient: Norfolk Fire Department
540 East City Hall Avenue, Norfolk, Virginia 23510
Budget: \$120,986
Duration: March 1, 1980 - April 30, 1981
Contact: Thomas R. Young, Norfolk Arson Control Program Mgr.
Telephone No.: (804) 441-2171

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget: n/a
Police Personnel: n/a # Fire Personnel: 435 Arson Inv. Budget: n/a
Powers of Fire Investigators: Fire investigators have full police powers.

FIRE DATA

Total Fires: 2801
Arson Investigations: 468
Fires Attributed to Arson: 284
Estimated Dollar Loss: \$1,346,000
Deaths: 0 civilian 0 firefighter 13
Injuries: 2 civilian 0 firefighter 7

Reporting Period: 1980
Criteria for Investigation:
Second alarm or better; suspicious or undetermined cause reported by fire suppression officer; any fatality to anyone or injury to citizen requiring hospitalization.

ARSON INVESTIGATION CAPABILITIES

Locus: The Arson Squad is operated and staffed by the Fire Department under its Fire Prevention Division.

Organization: Four fire investigators report to one supervising Captain.

Scope: All criterion fires in the city of Norfolk. The squad is also responsible for investigating all fire department applicants, bomb detonations, false alarms and accidents involving fire department vehicles.

Police-Fire Roles: Police are involved only when a death occurs but otherwise assist the Fire Dept. by transporting prisoners, furnishing intelligence and criminal history information and providing media support.

Links with Federal Agencies: ATF, FBI and IRS involved as needed; all participate on Task Force.

System of Prosecution: One special prosecutor and an assistant assigned to handle all arson cases, but others sometimes involved in probable cause hearing.

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ARSON CONTROL INITIATIVES

ACAP Contribution
Total Partial NoneFormation of Task Force

X

A task force was formed during the grant application process in July 1979. Chaired by the Program Manager, the group included representatives of fire, police prosecution, federal investigative agencies and the Chamber of Commerce. The Task Force functioned largely to authorize and legitimize anti-arson initiatives recommended by project staff and has not maintained an active presence.

Creation of Special Investigative Unit(s)

X

Although grant funds have not supported investigative personnel directly, the size of the squad was doubled with the addition of three investigators in January, 1980. The five-man unit, which devotes roughly 75% time to its arson investigation functions handles approximately 40 arson investigations per month.

Data - Intelligence System Development

X

A computerized fire investigation reporting system is being developed. Existing manual files have been improved and several manual data systems have been developed, but it is unclear whether these systems will be maintained in the absence of ACAP support. Similarly, real estate, tax and some police records are now available to investigators in the fire department but the terminal leasing arrangement may be discontinued at the conclusion of the grant.

Equipment and Laboratory Support

X

Laboratory support, including secure pick-up and delivery service on a weekly basis, is provided by the state laboratory in Richmond. While this arrangement was not altered by the grant, ACAP funds were used to purchase basic investigative equipment for the three new investigators, maintenance and fuel for three vehicles, a portable flammable liquid detector and photographic, dictating and radio equipment.

Training Support

X

Received by Investigators: All investigators were trained in arson investigation prior to joining the unit.

Delivered by Investigators: The Captain of the Arson Squad has taught two cycles of the 80 hour fire academy course for investigators to students outside of Norfolk within the Tidewater region. A 20 hour awareness course was designed and delivered to 6 insurance adjusters as well as all Captains and Lieutenants in the Fire Dept.

ARSON CONTROL INITIATIVES (continued)

ACAP Contribution
Total Partial NonePublic Information Activities

X

ACAP funds covered installation and rental fees for an arson hotline as well as attendant costs of hotline publicity. (Reward monies are state-funded.)

Juvenile Education and Treatment

X

An existing 5 hour fire prevention curriculum presented to all fifth graders in the city includes one hour of instruction on arson.

State: Virginia
Area Served: Central Virginia Planning District (CVPD) - 4 counties, 4 towns,
2 cities
Population: 182,400
Land Area: 2,149 sq. miles
Grant Recipient: City of Lynchburg
Budget: \$114,562
Duration: 12 months
Contact: Ray New, Commander, Fire Marshal's Office, City of Lynchburg
Tel. No: (804) 847-1348

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 10 # Fire Depts.: 1 Pd Fire Service Budget: n/a
Police Personnel: n/a # Fire Personnel: n/a Arson Inv. Budget: n/a

Powers of Fire Investigators:

City of Lynchburg fire investigators have special police powers, and carry firearms.

FIRE DATA CENTRAL VIRGINIA PLANNING DISTRICT (1975-1977)

Total Fires: 9,857
Arson Investigations: n/a
Fires Attributed to Arson: 2,088 (incendiary &
suspicious)
Estimated Dollar Loss: \$3,930,000
Deaths: n/a civilian n/a firefighter n/a
Injuries: n/a civilian n/a firefighter n/a

Reporting Period:

Criteria for Investigation:
Cases are prioritized as follows: fatal fires get as much effort as needed, followed by fires in order of injuries, amount of dollar loss, and the degree of seriousness or frequency of the type of fire. Unsolved cases can be kept open indefinitely because there is no statute of limitations on arson in Virginia.

ARSON INVESTIGATION CAPABILITIES

Locus: The City of Lynchburg has an arson investigation unit within the Fire Prevention Unit of the Fire Department. The other areas of the Central Virginia Planning District are served by police officers or sheriff's deputies who conduct all phases of arson investigations. Those Lynchburg investigators, police officers, and sheriff's deputies, in addition to State Police officers and representatives, collectively form the Regional Arson Investigation Squad (RAIS).

City of Lynchburg. The Fire Department is a fully-paid department with jurisdiction only over the city itself. It contains a Fire Prevention Unit headed by the City Fire Marshal. Within the Fire Prevention Unit is the Arson Investigation Unit. The Police Department in the City of Lynchburg assists in investigations only in cases of manpower shortage or heavy caseload in the Fire Marshal's office. Police are involved, however, in cases of concurrent crimes. Police and fire work as a team in such cases. In the City of Lynchburg, the sector commander (similar to a battalion chief) makes the judgment about cause of fire. The arson unit is staffed with three investigators, one who is at the Commander II level, and two who are at the firefighter level. The Fire

ARSON INVESTIGATION CAPABILITIES (continued)

Marshal also becomes involved in some investigations. Each investigator is on call for an entire week, 24 hours a day, every third week. Because the arson unit is incorporated into the Fire Prevention Division, the investigators are required to do inspections and other fire prevention activities, creating problems with overload.

Outlying Areas of the Central Virginia Planning District. The areas of the CVPD (other than the City of Lynchburg) are served by a number of volunteer fire departments. In these outlying areas, police officers (in the cities) and sheriff's deputies (in the counties) conduct all phases of arson investigations. Individual officers are designated by their chief or sheriff to hold that responsibility, and also become members of the Regional Arson Investigation Squad. In addition to the local law enforcement officers, the three Lynchburg investigators, State Police officers, and ATF representatives are members of the RAIS.

When there is a fire in an outlying jurisdiction, the volunteer fire company has the initial responsibility in deciding whether any investigation is warranted. If they so decide, they call local law enforcement. A local member of the Squad goes to the scene to assess whether the fire should be investigated. An investigation which can be handled by local law enforcement occurs without any involvement of the RAIS apart from the local members involved.

If, however, the local Squad member perceives that outside resources are needed, he consults with the Chief or Sheriff of the jurisdiction. The need for resources may include manpower, special expertise, or equipment. The Chief or Sheriff must agree with the investigator's assessment, and then contacts the Lynchburg Fire Marshal who also chairs the Advisory Committee. He will then activate the resources requested by the calling jurisdiction. In many instances, one or more of the highly experienced Lynchburg investigators paid under the grant will be able to provide the assistance needed. However, if a large number of investigators are needed to do the scene, conduct interviews, do paper chases, etc., there are 63 trained Squad members.

The calling jurisdiction retains control of the investigation. The other Squad members are only there to assist, not to take control. The evidence officer must be from the locality so that any necessary court appearances are not burdensome. Similarly, someone from the calling jurisdiction handles media relations since they are more sensitive to local issues. Note that the Squad takes its own identity when operating on a case. Each individual is there as a Squad member rather than as a representative of a particular county.

Scope: All criterion fires are considered for investigation. ATF provides assistance in cases involving explosives.

Police-Fire Roles: In the City of Lynchburg, the Police Department assists in investigations only in cases of manpower shortage or heavy caseload in the Fire Marshal's office. Police are involved, however, in cases of concurrent crimes. Police and fire work as a team in such cases.

In outlying areas, local arson investigations are conducted by police officers or sheriff's deputies, in response to a determination by the volunteer fire company that an investigation is warranted. The State Police also have a role in arson investigation, as members of the Regional Squad.

ARSON INVESTIGATION CAPABILITIES (continued)

Links with Federal Agencies: ATF representatives are members of the Regional Area Investigation Squad (RAIS). ATF is called if explosives are involved in a fire incident. IRS has provided some accounting services to the Squad.

System of Prosecution: City of Lynchburg. There is no specialization by types of felonies each prosecutor handles, although there is some hierarchy in the prosecution of the most serious arson cases. When the office is fully-staffed, a system of vertical prosecution is used.

Outlying Areas: The prosecutor's offices are staffed with only one or two attorneys. Therefore, there is no specialization.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formulation of Task Force</u>			X
The Task Force (Advisory Committee) was formed when the Regional Arson Investigation Squad was formed, about six months before the ACAP grant. Its mission was to oversee the operations of the Regional Arson Investigation Squad. The Advisory Committee consists of the Lynchburg Fire Marshal, Sheriffs of four counties, police chiefs from two cities, a commonwealth attorney, and representatives from the Virginia State Police Arson Division, the insurance industry, the business community, the volunteer fire service, and the Virginia Bar Association. The Advisory Committee has four subcommittees: legislative, squad operations, public education, and training. The Advisory Committee is important because it expands management authority over all jurisdictions including both Lynchburg and other locales.			

Creation of Special Investigative Unit(s) X
In 1975, the Lynchburg Fire Chief established an investigation unit under the City Fire Marshal. By 1979, the unit was well-respected and had developed considerable expertise. At that time, the lack of training and expertise in the rest of the Central Virginia Planning District became evident. Although the idea of forming a regional arson squad had been sporadically discussed, the real impetus for its creation was the availability of the ACAP grants.

Virginia law permits the creation of reciprocal agreements between jurisdictions in the state. The Central Virginia Planning District, as a result, established the Regional Arson Investigation Squad about six months before the ACAP grant. An Advisory Committee was also formed at that time. The ACAP grant allowed the Squad to become firmly established through the coordination, liaison, and public relations activities of project staff.

Creating the Squad as a separate entity has been beneficial because each jurisdiction has maintained its own identity, while the RAIS belongs to the collective areas.

Data - Intelligence System Development X
ACAP project staff have been designing a standardized reporting system of fire-related incidents. The data base includes information from all jurisdictions which make up the Regional Arson Investigation Squad. As of January 1, 1980, a investigation report is written and entered into the sysem for every fire that is investigated. The data base will eventually include reports dating back to 1975. The computerized file is

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
used to recall reports, search name files, and conduct radius searches of fire occurrences, arrests, or suspects' residence, based on a given address. The system is also tied to the motor vehicle department and NCIC for conducting record searches.			
<u>Equipment and Laboratory Support</u>		X	
ACAP funds were used to purchase a crime scene van equipped with camera equipment, crime scene equipment including a sniffer, radio and video equipment, and other miscellaneous crime scene items. A gas chromatograph was also purchased, and is used for screening cases for possible investigation. The State Forensic Lab continues to be used for formal lab analysis. The ATF lab is used in cases where chemicals or explosives are involved.			
The State Police continues to be an important resource for polygraph capabilities.			
<u>Training Support</u>		X	
Training of investigators in the City of Lynchburg occurred prior to the ACAP program. These investigators are now training firefighters in outlying areas in basic arson awareness. Additional training for regional investigators is being conducted as part of the ACAP grant.			
Training is delivered locally by local trainers and outside experts. Arson detection training is offered to firefighters (including volunteers), police officers, and insurance adjusters/investigators. It is required for the City of Lynchburg Fire Department. Training in investigation (including paper chase and use of gas chromatograph) is provided to those with investigative duties, based on selection for Squad membership by the chief law enforcement official for the jurisdiction.			
Training of prosecutors has been primarily "on-the-job" training from Squad investigators. One prosecutor attended the NCDA course. ACAP planned to send five prosecutors to an arson prosecution seminar at the University of Virginia.			
Other training has included specialty areas (such as woodlands arson), and firefighter courtroom skills (demeanor and testimony).			
<u>Public Information Activities</u>		X	
The ACAP grant helped fund a hotline program. Using Fire Department funds, the project ran a media campaign consisting of TV and newspaper public service announcements. Insurance industry support has also helped fund the hotline and public awareness campaign. Although some calls were received on the hotline, up to three times as many calls were received on the regular business phones of the fire and police departments. The hotline was used to provide information to callers as well as to receive information from them. Other public information activities include talk shows, speaking engagements to civic groups, and extensive press releases/local newspaper involvement. The public information campaign does not target a specific audience or subpopulation, and uses no specific themes or slogans.			
There is a statewide reward program funded by the insurance industry. There is also a statewide toll-free hotline supervised by the State Police who forward the calls to the appropriate local law enforcement agency.			

ARSON CONTROL INITIATIVES (continued)	Total Partial None		
<u>Juvenile Education and Treatment</u>			X
Fire investigation personnel conduct school education programs for all grade levels at all schools in the city. The theme of the program is fire prevention (especially home fires). The program is perceived as having only a minor impact on arson.			
<u>OTHER PREVENTIVE MEASURES</u>			
The Advisory Committee's Legislature Subcommittee has been preparing model arson legislation for the state, consulting with insurance people and other interested parties. The Legislative Subcommittee is also looking at fire prevention guidelines or codes for county areas.			

State: Indiana
Area Served: New Albany (will assist neighboring towns upon request)
Population: 38,402
Land Area: 11.3 sq. miles
Grant Recipient: City of New Albany, Arson Bureau, 3037 Grant Line Rd., New Albany, IN
Budget: \$113,220
Duration: 2/80-8/81
Contact: Capt. Robert Johnson
Telephone No: (812) 945-8511

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget: 1980 est.:
\$1,242,305
Police Personnel: 42 # Fire Personnel: 80 Arson Inv. Budget: 1980 est.:
\$ 13,717

Powers of Fire Investigators: Investigators have received 400 hours of basic law enforcement training at the police academy and are sworn peace officers.

FIRE DATA

Total Fires: 482
Arson Investigations: 89
Fires Attributed to Arson: 58
Estimated Dollar Loss: \$222,000
Deaths: civilian 0 firefighter 0
Injuries: civilian 0 firefighter 13

Reporting Period: 1980
Criteria for Investigation:
Officer in charge feels something is suspicious; also, they check the morning fire round reports and follow-up on anything suspicious.

ARSON INVESTIGATION CAPABILITIES

Locus: The Arson Bureau is staffed and housed by the Fire Department and coordinated by the Fire Chief and Police Chief.

Organization: Two investigators report to a supervising Captain.

Scope: Responsible for all fires in the city, as well as malicious false fire alarms and bombings. The bureau will provide assistance to neighboring towns upon request.

Police-Fire Roles: Because the fire investigators are also sworn police officers, the bureau follows through on investigations to their conclusion. Where a homicide is involved, police will join the Bureau in its efforts.

Links with Federal Agencies: Assistance from the ATF and FBI is requested on a case-by-case basis. The bureau has also been in contact with the IRS.

System of Prosecution: Traditional horizontal prosecution system. No arson specialization.

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ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Creation of Special Investigative Unit(s)</u>		<u>X</u>	
Prior to ACAP the arson bureau consisted of a single fire investigator who was cross-trained at the police academy. Grant funds were used to add two investigators and a part-time secretary. The arson bureau will maintain surveillance on areas or buildings where they have recognized a pattern of set fires. The State Fire Marshal has five fire investigators which are available to assist local efforts, but the bureau has not found it necessary to collaborate with them.			

<u>Data - Intelligence System Development</u>		<u>X</u>	
The bureau maintains a manual cross reference file of addresses and names involved in an investigation.			

<u>Equipment and Laboratory Support</u>		<u>X</u>	
Laboratory support is provided by the State Police Laboratory and an in-house laboratory. ACAP funds were used to purchase a gas chromatograph. This in-house laboratory capability is increasingly important to the bureau because samples have to be hand-carried to the State Police Laboratory, a round trip of 240 miles. In addition, a crime scene van, investigative and surveillance equipment were purchased with grant funds.			

<u>Training Support</u>		<u>X</u>	
Received by investigators: all investigators have attended the police academy, arson investigation courses, and explosives training.			
Delivered by investigators: The fire department personnel received training through the use of the 1980 NFPA arson slides.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Public Information Activities</u>			<u>X</u>
The Hartford Insurance Company has engaged in public information activities by using posters and by developing radio and T.V. PSA's. In late 1980, the Indiana State Fire Marshall began a statewide hotline and reward system.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Juvenile Education and Treatment</u>			<u>X</u>
While no formal program is operated by the bureau, they work with the court's Juvenile Probation Office where youths are involved in arson.			

<u>Other Preventative Measures</u>			<u>X</u>
Reward posters are used on burned buildings.			

State: Illinois
Area Served: Village of Bolingbrook
Population: 42,000 (April 1979)
Land Area: 8.9 sq. miles
Grant Recipient: Village of Bolingbrook, 131 East Boughton Road,
Bolingbrook, Illinois
Budget: \$105,312
Duration: 1/3/80-6/30/81 (Village has funded for next year)
Contact: Vince Calcagno, Fire Marshal
Telephone No: (312) 759-0440

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget: 1980:\$1,242,990
Police Personnel: 50 # Fire Personnel: 43 Arson Inv. Budget: 1980:\$ 68,080
Powers of Fire Investigators: Fire investigators have peace officer status pursuant
to home rule ordinance (permissible according to an Opinion of the Attorney General).
(State law permits only police to carry guns and prohibits fire-police cross commis-
sions.)

FIRE DATA

Total Fires: 431
Arson Investigations: n/a
Fires Attributed to Arson: n/a
Estimated Dollar Loss: * \$260,651
Deaths: civilian n/a firefighter n/a
Injuries: civilian n/a firefighter n/a

Reporting Period: 1979
Criteria for Investigation:
(1) Parent calls with problem
child; (2) Day: respond to all
fires; Night: if officer in
charge has any question in his
mind he calls the Fire Marshal
who responds to scene and deter-
mines whether or not to employ
fire investigators.

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire-police Bolingbrook Fire & Arson Investigation Unit housed
in Fire Dept. Administration Center under the Bureau of Fire Prevention.

Organization: One fire investigator, one police investigator, and one part-time
secretary (all ACAP funded) report to the Fire Marshal.

Scope: Responsible for all village fires, false alarms, and post-blast explosions
(Fire Marshal trained in post-blast). (Note: police are responsible for pre-blast
bombings, although U.S. Army usually called in to look for bombs.)

*All fires.

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ARSON INVESTIGATION CAPABILITES (continued)

Police-Fire Roles: The unit uses police resources (e.g., occassionally evidence technicians or fingerprint expert). Homicide-arson investigations would be a joint effort.

Links with Federal Agencies: ATF has probably been the most available agency (e.g., ATF computer can matrix problems for them).

System of Prosecution: No formal specialization; however, most arson cases are handled by one assistant state's attorney. Attorneys have attended seminars on arson.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None

<u>Formation of Task Force</u>			X
An Advisory Committee was created concurrent with ACAP to supervise the project through monthly meetings. Members include Fire Chief, Chief of Police, State's Attorney, School District Supt., Counseling Center. Meetings are held only infrequently, but members are in close daily contact so the lack of meetings has not created difficulties.			

<u>Creation of Special Investigative Unit(s)</u>		X	
Prior to ACAP fires were investigated on a part-time basis by fire inspectors; the grant provided a formal, full-time investigative unit. Moreover, the Juvenile Fire-setter Intervention Program has been expanded. At the time of the grant application the objective was a 20% reduction in arson; however, increased investigation has revealed a more serious arson problem than was previously recognized. They are presently clearing 77% of all suspicious fires, compared to the pre-unit 40%; this means arson recognition is up 65%. In addition, arson incidence has been reduced by 15%.			

The unit collaborates quite frequently with insurance companies. Every car fire in the village has resulted in a conviction, this has served to increase cooperation between the unit and insurers. Allstate Insurance works with the unit and pays fees for private laboratory analysis. Other insurers have come to rely solely on the judgment of the investigators. The unit conducts stakeouts where there has been a series of fires. For example, they had several harassment fires in a particular multi-family structure, a stakeout resulted in apprehension of the kids who were put into their program and have not set any more fires.

The Juvenile Firesetters Intervention Program, originally targeting 4-7 year olds, has been expanded and will take children up to 15 years. Of juveniles in this age range, none have been processed through the court system and of the juveniles participating in the program the rehabilitation rate is very high.

ARSON CONTROL INITIATIVES (continued)

Data - Intelligence System Development	ACAP Contribution		
	Total	Partial	None
Fire incidence records utilize NFIRS and they are just starting to get them on the state computer. For investigative reports they use the police crime reporting system; they are currently computerizing this information as ACAP provided a terminal so they could tie-in to the police computer. Once up, they will have a system capable of performing early warning and special intelligence functions (e.g., geographical patterns, time & day, prior auto-fires by type, etc.).		X	

<u>Equipment and Laboratory Support</u>		X	
Laboratory support is provided by the state (free), but turnaround can be up to 3 months. For Allstate Insurance cases, the company pays for private lab analysis. They have in-house photo capabilities and firefighters have been trained in processing to free investigators time. ACAP provided a fire investigation van, a computer terminal, a camera, protective clothing, one vapor detector, two flammable liquid detectors, a transcriber (State's Atty. requires transcripts), investigative and evidence equipment, and office equipment.			

<u>Training Support</u>		X	
(almost all)			
Received by Investigators: The fire investigator received six weeks of police training at the University of Illinois (he is the first firefighter in Ill. to be fully cross-trained), and two weeks on patrol duty. The police investigator attended their local fire academy for 6 weeks, and worked as a firefighter (24 hrs. on/48 hrs. off) for five days. Thereafter both received the following training:			
<ul style="list-style-type: none">• USFA Arson Detection and Public Education• USFA Arson Investigation• Rode for 3 days w/Chicago Bomb & Arson Unit and the 19th District Tactical Unit (state police)• Reed School of Interrogation - 1 day• Evidence Collection by the P.D. Evidence Team-5 days• Evidence Photography - jointly sponsored by the University of Illinois and Bolingbrook - 5 days• ATF White Collar Arson - 5 days• Traffic Crash and Arson, cross training by local expert - 4 day field training• Variety of Department financed seminars (Rockford, University of Illinois, Champagne, etc.)			

Continuous Training/Skill Maintenance:

- Weekly training at Fire Academy
- Monthly firearms qualification at police dept.

Delivered by Investigators: Fire Officers have been trained in Arson Recognition. They have not trained the police, as the police call them every time they discover anything suspicious.

	ACAP Contribution		
	Total	Partial	None
ARSON CONTROL INITIATIVES (continued)			
Public Information Activities		X	

They receive extensive newspaper coverage. The unit has its own hotline. They recently delivered films to a local cable T.V. station. Insurance companies provided posters as well as materials for their Home Fire Safety Survey, a door-to-door project conducted by firefighters on the weekends (the entire village was targeted with priority given to high arson areas).

Juvenile Education and Treatment

_____ X _____

Their juvenile program does parent-child counseling and fire investigators have state certification via the Juvenile Officers School (necessary for any interaction with juveniles). Youths are also referred to the village Counseling Center, and severe cases to the University of Illinois treatment program for juvenile firesetters. The unit is very active in the schools. There is a standard, progressive fire safety/arson curriculum for all schools. (For juveniles fire safety and arson are usually one and the same.) Due to an increased investigative load (more crime than anticipated), they have had to rely more on the schools for implementation. The unit provides materials and trains the teachers; however, in the future they would like much more direct student-investigator contact as they feel that method is more effective.

Other Preventive Measures

_____ X _____

The Fire Department has the power to order buildings to be boarded. The Building Department is highly cooperative in carrying out the orders.

State: Iowa

Area Served: Sioux City (some border towns have participated in in-house training)

Population: 85,494 (7/76)

Land Area: 52.2 sq. miles

Grant Recipient: Sioux City Police Dept., 116 6th Street, Sioux City, Iowa

Budget: \$79,774

Duration: 2/14/80-2/14/81 (possible time extension)

Contact: Bob White, Police Planning and Research Officer

Telephone No: (712) 279-6749

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

# Police Depts.: 1	# Fire Depts.: 1	Fire Service Budget: n/a
# Police Personnel: n/a	# Fire Personnel: n/a	Arson Inv. Budget: n/a

Powers of Fire Investigators: State law permits fire personnel to arrest arson suspects.

FIRE DATA

Total Fires: n/a	Reporting Period: 1978
Arson Investigations: n/a	Criteria for Investigation:
Fires Attributed to Arson: 44	Unit is notified whenever
Estimated Dollar Loss: \$128,060	officer in charge has any suspi-
Deaths: civilian n/a firefighter n/a	cions or doubts about origin of
Injuries: civilian n/a firefighter n/a	the fire. A more precise screen-
	ing formula is being developed
	for post-grant use.

ARSON INVESTIGATION CAPABILITIES

Locus: The Arson Unit is operated and staffed by the Fire Department under its Fire Prevention Division. Similarly, the Police Arson Investigation Unit is operated and staffed by the Police Department under its Detective Division.

Organization: One fire investigator reports to one supervising Captain. Two police investigators report to one supervising Sergeant.

Scope: All criterion fires in Sioux City. Recently, special attention was given to an interstate arson for profit ring. Auto fires are particularly problematic.

Police-Fire Roles: The fire department arson unit investigates the cause of suspicious fires, and if they determine arson to be the cause, they turn the case over to the police arson unit for investigation and apprehension of suspects.

Links with Federal Agencies: The police arson unit had one investigator working full time with the ATF on an interstate arson for profit ring.

System of Prosecution: Grant funds were used to hire a part-time special prosecutor for arson.

	ACAP Contribution		
	Total	Partial	None
<u>ARSON CONTROL INITIATIVES</u>			
<u>Formation of Task Force</u>		<u>X</u>	
While the project does not have a Task Force, there is a project coordinating committee called the Arson Control Group. The members of the two arson units, the Chiefs of Police and Fire, and the county attorney all meet once a month to discuss the progress of the grant and operations in general. This group will continue after the grant expires.			
<u>Creation of Special Investigative Unit(s)</u>		<u>X</u>	
Both arson units existed prior to ACAP, the police unit having been more recently established (January 1979). One police investigator and one part time prosecutor are supported by grant funds. One police investigator will be cut from the unit when the grant is over due to budgetary difficulties.			
<u>Data - Intelligence System Development</u>		<u>X</u>	
The Sioux City Police computer is used for all arson cases. All active arson cases are in the system, and they hope to get profiles soon.			
<u>Equipment and Laboratory Support</u>		<u>X</u>	
Laboratory support is provided by the ATF laboratory. Previously the project used a laboratory in Texas, but the cost became prohibitive. Photographic work is done in the police photography laboratory. ACAP funds were used to purchase basic investigative equipment, a crime scene van, and photographic equipment. The vapor analyzer originally requested in the grant application was replaced with a more modest model that better met the needs of the project.			
<u>Training Support</u>		<u>X</u>	
Received by Investigators: All investigators have received extensive investigative and other arson-related training. In addition, the special prosecutor has attended three training courses.			
Delivered by Investigators: Roll call training on arson detection has been received by firefighters. This training has already resulted in an arrest which would otherwise not have been made. Similar training is planned for the police patrolmen. The project management feels training of firefighters and patrolmen is important as budget constraints will affect the capabilities of the specialized arson units.			
<u>Public Information Activities</u>			<u>X</u>
Project activities have included talk show appearances and T.V. spots. The unit also obtains press coverage on arsons to promote the deterrent effect of the projects activities. The State operates a reward fund and a hotline.			

	ACAP Contribution		
	Total	Partial	None
<u>Mobilization of Neighborhood Groups</u>			<u>X</u>
Although the neighborhood Crime Watch has been subject to some budget cuts, project staff have used patrol officers to help keep it active.			
<u>Juvenile Education and Treatment</u>			<u>X</u>
The Juvenile Court System handles referral and counseling of youths. In the fall of 1980 they conducted arson prevention activities at the elementary, junior high, and high school levels.			
<u>Other Preventive Measures</u>			<u>X</u>
Iowa has an arson reporting-immunity law and project members met with representatives of the insurance companies to exchange information.			

State: Georgia
Area Served: Columbus (the city and the county are coterminous)
Population: 174,000
Land Area: 141 sq. miles
Grant Recipient: Columbus Consolidated Gov't Fire Dept., P.O. Box 1340, Columbus, Georgia.
Budget: \$71,137
Duration: 2/80-8/81
Contact: Mr. Larry E. Love, Coordinator of Intergovernmental Assistance
Telephone No: (404) 324-7711

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget: 1980: \$4,666,489
Police Personnel: 317 # Fire Personnel: 285 Arson Inv. Budget: 1980: \$ 113,446
Powers of Fire Investigators: Fire investigators have attended the police academy (240 hrs.) and are sworn peace officers.

FIRE DATA

Total Fires: 577
Arson Investigations: 265
Fires Attributed to Arson: 84
Estimated Dollar Loss: \$431,000
Deaths: civilian 0 firefighter 0
Injuries: civilian 0 firefighter 0

Reporting Period: 1980
Criteria for Investigation:
A District Chief is dispatched to every fire and if he cannot determine the origin or if he finds anything suspicious the unit is called in.

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed arson unit, referred to as the Arson Task Force, housed in the Fire Dept. under the Fire Prevention Division.

Organization: Four fire investigators, and two police detectives report to the Assistant Fire Marshal.

Scope: Responsible for all criterion fires in the city of Columbus. Investigative services are rendered to neighboring areas upon request. Unit coordinates efforts with police in bombing cases.

Police-Fire Roles: While the unit handles the case through to prosecution, police assistance is always available upon request. Police are involved in all homicide-arson cases.

Links with Federal Agencies: The unit becomes involved with federal agencies on a case-by-case basis.

System of Prosecution: A special assistant District Attorney handles all arson cases.

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ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>			X
A Task Force, referred to as the Advisory Board, was created concurrent with ACAP. The Task Force is an administrative body which sets policy and procedure. Members include the supervisors of the unit's personnel: the Chief of Police, the Fire Chief, the District Attorney, and the Director of Public Safety. Meetings are infrequent.			
<u>Creation of Special Investigative Unit(s)</u>			X
Prior to ACAP, the fire department had one investigator. The grant funded 3 additional fire investigators, and a joint unit was formed under the Fire Prevention Division by transferring two police detectives to the unit. The Assistant Fire Marshal who supervises the unit reports to the Fire Marshal. During investigations the unit may collaborate with insurance investigators or the District Attorney's office. If surveillance is necessary Fire Inspectors are used.			
<u>Data - Intelligence System Development</u>			X
Manual data files are kept including daily records of investigations. Although data is not computerized they anticipate some software development.			
<u>Equipment and Laboratory Support</u>			X
Laboratory support is available from both the ATF and Police Department. ACAP funds were used to purchase basic investigatory equipment, as well as a gas detector.			
<u>Training Support</u>			X
Received by Investigators: Fire investigators (civilians) received police academy training, and all investigators received extensive orientation and cross-training from the fire and police departments and the D.A.'s office. The D.A. attended an NFA course in Maryland.			
Delivered by Investigators: The arson investigators have presented seminars to line firefighters.			
<u>Public Information Activities</u>			X
Local support has provided a media campaign. Insurance companies provided radio and T.V. spots, and local stations provided free air time. The city funds a hotline, and the insurance industry has a \$2,500 reward fund. The unit has also taken advantage of donated billboard space.			
<u>Mobilization of Neighborhood Groups</u>			X
The local Historic District Association helped spur the grant application by voicing its concern for the loss of historic buildings.			

Juvenile Education and Treatment	ACAP Contribution		
	Total	Partial	None
<u>Juvenile Education and Treatment</u>			X
Juveniles are handled either through the court's Youth Services or the police Youth Division. Efforts in this area are enhanced by a particularly active judge. The arson unit has sent speakers to local schools to discuss arson.			
<u>Other Preventive Measures</u>			X
A new city ordinance allows the city to demolish dilapidated buildings and charge the owner for the costs.			

State: New Jersey
Area Served: City of Jersey City
Population: 260,545 (1970)
Land Area: 14.65 sq. miles
Grant Recipient: Jersey City Fire Dept., 282 Central Ave., Jersey City, New Jersey
Budget: \$31,198
Duration: 3/1/80-5/31/81
Contact: Thomas Casserly, Criminal Justice Planner
Telephone No.: (201) 547-5699

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget: 1980: \$16,420,652
Police Personnel: 916 # Fire Personnel: 675 Arson Inv. Budget: 1980: \$ 50,000
Powers of Fire Investigators: Investigators have no police powers.

FIRE DATA

Total Fires: 4,766
Arson Investigations: 560
Fires Attributed to Arson: 81
Dollar Loss: \$340,000
Deaths: civilian 3 firefighter 0
Injuries: civilian 6 firefighter 13

Reporting Period: 1980
Criteria for Investigation:
Suppression Officer in charge
suspects arson.

ARSON INVESTIGATION CAPABILITIES

Locus: The arson unit, called the Arson Task Force, is operated and staffed by the Fire Department under its Fire Prevention Bureau.

Organization: Six fire investigators report to the Fire Prevention Deputy Chief.

Scope: All criterion fires in Jersey City. Investigators occasionally investigate possible hazardous material sites.

Police-Fire Roles: Once the arson unit detects arson, the matter is turned over to the police detectives for investigation.

System of Prosecution: The county prosecutor's office has an arson investigation unit which includes an attorney. They are available to assist in legal aspects of case development and handle most of the arson prosecutions.

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ARSON CONTROL INITIATIVES

	ACAP Contribution		
	Total	Partial	None

Creation of Special Investigative Unit(s) _____ X _____

While the grant funds provided no new manpower, they served as the impetus for the formal organization of the seven-man unit. As in the pre-grant period, the N.J. State Police Arson Unit and the County Prosecutor's arson unit remain available to assist the city investigators upon request.

Data - Intelligence System Development _____ X _____

The city has recently purchased a much larger computer which will serve the arson unit. Computer forms have been prepared, and a complete arson program is to be written. Planned data include incidence, investigation, cross-references of addresses and of suspects. Moreover, they will be able to track owners of multiple properties, victims of multiple fires, and other early warning indicators. Grant funds were used to pay for computer time.

Equipment and Laboratory Support _____ X _____

Laboratory support is provided by the state laboratory at Little Falls. While this arrangement was not altered by the grant, ACAP funds were used to purchase basic investigative equipment for the investigators, a crime-scene van, a portable gas detector, and photographic equipment.

Training Support _____ X _____

Received by investigators: Unit members have received training from USFA and N.J. Division of Criminal Justice (state arson investigation course funded by ACAP).

Public Information Activities _____ X _____

The unit has had several speaking engagements as part of an ongoing speakers program under the Fire Prevention Bureau. The unit sponsored an Arson Week and grant funds paid for posters and other printed materials.

State: Utah
Area Served: Salt Lake County
Population: 543,000
Land Area: 764 sq. miles
Grant Recipient: Office of the Salt Lake County Attorney
Budget: \$222,222
Duration: 18 mos. & extensions
Contact: Don Harman, Chief Investigator
Telephone No.: (801) 363-7900

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

# Police Depts.: 13	# Fire Depts.: 13	Fire Service Budget: n/a
# Police Personnel: n/a	# Fire Personnel: n/a	Arson Inv. Budget: n/a

Powers of Fire Investigators: Fire investigators who have completed training have police officer powers (Class II).

FIRE DATA

Total Fires: 704	Reporting Period: 4th quarter 1980
Arson Investigations: n/a	
Fires Attributed to Arson: 72 (excludes suspicious & unknown)	
Estimated Dollar Loss: 470,780 (includes suspicious)	
Deaths: 1 civilian 1 firefighter n/a	Criteria for Investigation: SAFE Unit and Strike Force responds at request of local jurisdiction
Injuries: 9 civilian 5 firefighter 4	

ARSON INVESTIGATION CAPABILITIES

Locus: Under the grant a Special Arson Fire Enforcement Unit was established in County Attorney's Office.

Organization: The SAFE Unit consists of three investigators, a secretary, and a training officer under the supervision of the Chief Investigator of the Salt Lake County Attorney's Office. A county-wide strike force was developed with participants from each of 13 jurisdictions in the county.

Scope: The SAFE Unit and the Strike Force are available to respond to fires anywhere in the county at the request of the local jurisdiction.

Police-Fire Roles: The SAFE Unit includes investigations from both fire service and law enforcement backgrounds. They perform identical roles in the Unit. The division of responsibility (or the extent to which it is shared) between fire and police varies in the local jurisdictions.

Links with Federal Agencies: Cooperation is good, especially with ATF. Salt Lake sends its samples to the ATF laboratory in San Francisco.

System of Prosecution: A designated arson prosecutor works closely with the SAFE Unit. This is facilitated by the SAFE Unit's location in the County Attorney's organization.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>	_____	<u> X </u>	_____
<p>A task force was formed to help coordinate anti-arson activities. One of its functions is to discuss and plan legislative initiatives relating to arson control and prevention.</p>			
<u>Creation of Special Investigative Unit(s)</u>	_____	<u> X </u>	_____
<p>The ACAP grant provided the impetus for the establishment of the SAFE Unit and provided for the training of the strike force members. The strike force and SAFE Unit can be called out whenever a local jurisdiction requests assistance. The local fire investigator directs the investigation and makes assignments. The SAFE Unit members may advise the local investigator and provide particular expertise. SAFE Unit investigators often help with arson-for-profit investigations and assist local investigators in preparing the case for presentation to the prosecutor. A high degree of cooperation among the participating jurisdictions has been achieved.</p>			
<u>Data - Intelligence System Development</u>	_____	<u> X </u>	_____
<p>Work on developing a comprehensive computerized information program on arson history and predictions was not able to be completed. However, NFIRS data for the state of Utah was produced in new formats which provided the SAFE Unit with more detailed analyses of the local fire and arson patterns.</p>			
<u>Equipment and Laboratory Support</u>	_____	<u> X </u>	_____
<p>The grant provided funds for a mobile arson lab--a specially equipped van with equipment necessary for processing scenes.</p>			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Training Support</u>	_____	<u> X </u>	_____
<p>Training is a major component of the Salt Lake project. Initial training was provided to fire investigators in the local jurisdictions for eight weeks. The SAFE Unit teaches a 7 hour block on arson investigation at the Police Academy. It also presents one-week training courses on cause and origin to arson investigators and battalion chiefs; law enforcement investigators participate in training with fire investigators. Training includes the control of scenes and testifying in court. Mock trials are held and are deliberately scheduled months after the on-the-scene training exercise in order to simulate the real life experience and particularly to emphasize the needs to take good notes. In addition the SAFE Unit has been asked to provide other training in the state of Utah.</p>			
<u>Public Information Activities</u>	_____	<u> X </u>	_____
<p>Public awareness efforts have included encouraging better press coverage of anti-arson activities, including coverage of fire and arson training programs; television appearances; public appearances; and publication of magazine articles relating to the arson problem and efforts to combat it.</p>			

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>	_____	<u>X</u>	_____
A task force was formed to help coordinate anti-arson activities. One of its functions is to discuss and plan legislative initiatives relating to arson control and prevention.			
<u>Creation of Special Investigative Unit(s)</u>	_____	<u>X</u>	_____
The ACAP grant provided the impetus for the establishment of the SAFE Unit and provided for the training of the strike force members. The strike force and SAFE Unit can be called out whenever a local jurisdiction requests assistance. The local fire investigator directs the investigation and makes assignments. The SAFE Unit members may advise the local investigator and provide particular expertise. SAFE Unit investigators often help with arson-for-profit investigations and assist local investigators in preparing the case for presentation to the prosecutor. A high degree of cooperation among the participating jurisdictions has been achieved.			
<u>Data - Intelligence System Development</u>	_____	<u>X</u>	_____
Work on developing a comprehensive computerized information program on arson history and predictions was not able to be completed. However, NFIRS data for the state of Utah was produced in new formats which provided the SAFE Unit with more detailed analyses of the local fire and arson patterns.			
<u>Equipment and Laboratory Support</u>	_____	<u>X</u>	_____
The grant provided funds for a mobile arson lab--a specially equipped van with equipment necessary for processing scenes.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Training Support</u>	_____	<u>X</u>	_____
Training is a major component of the Salt Lake project. Initial training was provided to fire investigators in the local jurisdictions for eight weeks. The SAFE Unit teaches a 7 hour block on arson investigation at the Police Academy. It also presents one-week training courses on cause and origin to arson investigators and battalion chiefs; law enforcement investigators participate in training with fire investigators. Training includes the control of scenes and testifying in court. Mock trials are held and are deliberately scheduled months after the on-the-scene training exercise in order to simulate the real life experience and particularly to emphasize the needs to take good notes. In addition the SAFE Unit has been asked to provide other training in the state of Utah.			
<u>Public Information Activities</u>	_____	<u>X</u>	_____
Public awareness efforts have included encouraging better press coverage of anti-arson activities, including coverage of fire and arson training programs; television appearances; public appearances; and publication of magazine articles relating to the arson problem and efforts to combat it.			

State: Florida
Area Served: Metropolitan Dade County

Population: 1,800,000
Land Area: 2,054 square miles
Grant Recipient: Dade-Miami Criminal Justice Council

Budget: \$219,122 (including match)
Duration: 2/8/80 - 5/31/81
Contact: Ms. Una Newman
Telephone No: (305) 547-7788

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 10 # Fire Depts.: 6 Fire Service Budget: n/a
Police Personnel: n/a # Fire Personnel: n/a Arson Inv. Budget: n/a

Powers of Fire Investigators: In Dade County, the Fire Department investigators do not have police powers. However, in the City of Miami, the Fire Department investigators do have police powers.

FIRE DATA

Total Fires: 4039 (building fires)	Reporting Period: 1978
Arson Investigations: n/a	Criteria for Investigation:
Fires Attributed to Arson: 258 (building fires)	Arson or undetermined cause are
Estimated Dollar Loss: \$2.6 million	the criteria used to call in an
Deaths: civilian 0 firefighter 0	investigator.
Injuries: civilian n/a firefighter n/a (22 total injuries)	

ARSON INVESTIGATION CAPABILITIES

Locus: Fire investigation unit in county fire department; follow-up investigations by police departments.

Organization:

Dade County Fire Department Fire Prevention Bureau: The Dade County Fire Department's Fire Prevention Bureau consists of six full-time investigators (three work 40-hour shifts, three work split shifts of 56 hours--one day on, one day off), twelve part-time investigator/inspectors, and a secretary. Dade county's fire investigators are charged with the responsibility of fire cause determination (in addition, the investigators who work the 40-hour shifts do paper chases). Dade County fire investigators also conduct arson investigations for the West Miami Fire Department. The County Fire Department provides fire services including determination of cause for North Miami, South Miami, North Miami beach, and Homestead. Follow-up investigations are handled by the respective Police Departments in those localities.

ARSON INVESTIGATION CAPABILITIES (continued)

Organization -- Dade County Fire Department Fire Prevention Bureau (continued)

If there is a fire during off-hours, and the fire investigator needs help, he will call in his partner (each split-shift investigator has a daytime shift partner). Typically, in such a case, the police are not notified until the morning.

Dade County Public Safety Department Arson Unit: The Dade County Public Safety Department's Arson Unit, consisting of two men, is charged with subsequent follow-up investigation. The Public Safety Department's Crime Lab serves all 27 Dade municipalities and the unincorporated areas, and performs arson lab analysis as needed.

Miami Fire Department: The Miami Fire Department's bureau consists of four full-time fire investigators, one lieutenant, one I.D. technician, and one secretary. Each investigator is classed as a Special Police Officer and is charged with the total investigation from the fire scene to arrests and the judicial process.

Coral Gables Fire Department: The Coral Gables Fire Department bureau consists of one full-time investigator, one part-time investigator, and one secretary. Subsequent criminal investigations are conducted by the Coral Gables Police Department.

Hialeah Fire Prevention Bureau: The Hialeah Fire Prevention Bureau is staffed with one full-time investigator, one part-time investigator, and one secretary. Subsequent criminal investigations are conducted by the Hialeah Police Department.

Miami Beach Fire Prevention Bureau: The City of Miami Beach's Fire Prevention Bureau is staffed with one full-time investigator and one secretary. The Miami Beach Police Department is responsible for the subsequent criminal investigation.

Scope: Cases upon which investigative resources are focused include arsons that involve fatalities, injuries, and large dollar loss, and cases which appear likely to be solved.

Police-Fire Roles: Except for the City of Miami, where the fire department handles the entire investigation, there is a split responsibility between fire and police, in theory. Fire investigators do the cause determination, and police investigators do the follow-up. In reality, the investigators work in two-person teams.

System of Prosecution: Prosecution for the entire county is under the jurisdiction of the State's Attorney for Dade County. Arson prosecution is vertical (charging and filing decisions in arson cases are made by the same prosecutor who will try the case). The typical point of prosecutor entry into an arson case is when the police/fire investigators have developed leads, although, on occasion, a prosecutor will go to a fire scene. The ACAP grant reimburses the State's Attorney's Office for the time spent on arson by any of the four prosecutors in the unit responsible for arson.

ARSON CONTROL INITIATIVES

ACAP Contribution
Total Partial None

Formation of Task Force

X

An Arson Control Board, Metro-Dade's version of the task force, was created for two specific purposes related to this grant. The board is charged with providing direction and review during the development and pilot testing of the training program. The other task of the board is the creation of recommended Standard Operating Procedures for the fire and law enforcement agencies involved with arson in each of the jurisdictions within the county. As membership in the Arson Control Board is at the Deputy Chief level, no departments are bound to adopt these SOPs by their participation in the development process. However, once formulated by the Board, the SOPs are brought to the attention of the Department Chiefs and the Chief Executive of each jurisdiction for their consideration.

Data - Intelligence System Development

X

ACAP funds were used to purchase a software package, a printer terminal, and computer time for statistical analysis. A data analyst, employed under the grant, developed a computerized name file of all individuals with any relationship to an arson or suspicious or unknown fire (witnesses, suspects, occupants, adjusters, etc.). This allows both internal and interjurisdictional cross-referencing.

A second project undertaken by the data analyst has been to research the set of potential indicators of possible arson. This analysis began with the variables listed on incident and alarm reports.

Dade County has a fire incident system that has the potential to be used as an information system, but there are no plans for such use. The system produces fire incident, loss, death/injury, time, date, place, and type of fire (arson or suspicious) data.

Equipment and Laboratory Support

X

Public Safety Department (Dade County Police) Laboratory.

ARSON CONTROL INITIATIVES

ACAP Contribution
Total Partial None

Training Support

X

The ACAP grant provided the funding for the design and implementation of a modular training program. The project decided to issue a competitive solicitation for the design and delivery of training programs. Initial responses from universities were unsatisfactory and led to a re-issuing of the solicitation. The contract was eventually let to an out-of-state, for-profit corporation. Two programs were designed. The training materials were developed from Dade County cases and were designed specifically for Dade County needs. Videotapes of the training program will be made available for future training.

Basic firefighter course in arson awareness. This was a 20-hour course for policemen and firefighters.

Advanced arson course. Training sessions in advanced arson detection were also provided for investigators.

The four Dade County arson prosecutors attended the NCDA course. Two of the prosecutors also attended the two-week advanced arson detection course funded by ACAP.

Public Information Activities

X

The project director employed under the grant engaged in numerous public spending activities. These included radio and T.V. interviews and talk shows as well as interviews and releases to the print media. Investigative and prosecutor personnel also participated in these activities.

State: Washington
Area Served: Snohomish County
Population: 304,733
Land Area: 2,098 sq. miles
Grant Recipient: Snohomish County Law and Justice Planning, 4th Floor County Administration Building, Everett, Washington 98201
Budget: \$184,789
Duration: January 1, 1980 - December 31, 1981
Contact: Lyle Cyrus County Fire Marshal
Telephone No.: (206) 259-9557

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 18 # Fire Depts.: 33* Fire Service Budget: n/a
Police Personnel: n/a # Fire Personnel: 181 Arson Inv. Budget: n/a

Powers of Fire Investigators: The Fire Marshal and his investigators have arrest powers and access to law enforcement information as they hold sheriff's deputy commissions.

*Included in this number are 26 fire protection districts within the county.

FIRE DATA for unincorporated areas and city of Everett (covers 68% of pop. in county)

Total Fires: 796 Reporting Period: 1978
Arson Investigations: n/a Criteria for Investigation:
Fires Attributed to Arson: 147 The SPARC Unit within the
Estimated Dollar Loss: \$366,069 (city of Everett 1977) County Fire Marshal's office
Deaths: n/a civilian n/a firefighter n/a was to be called to any fire
Injuries: n/a civilian n/a firefighter n/a of major proportions, any fire
where someone is suspected or
it is obviously arson and any
fire where the chief is unsatisfied regarding the cause
of the fire.

ARSON INVESTIGATION CAPABILITIES

Locus: Chief fire official in each city and the County Fire Marshal.

Organization: The County Fire Marshal, who has authority over investigations in the unincorporated areas of the county, reports to the County executive and council. There are arrangements for the County Fire Marshal to provide services to individual cities as needed.

Scope: The County Fire Marshal handles investigations in the unincorporated areas. The individual cities are responsible for investigations within their own boundaries.

Police-Fire Roles: The County Fire Marshal has a Sheriff's Deputy assigned to the investigation section of his office. Although police-fire coordination varies from locality to locality, police involvement is typically limited to arrest/warrant situations

ARSON INVESTIGATION CAPABILITIES (continued)

System of Prosecution: Prior to ACAP, no one in the prosecutor's Office was trained in arson prosecution. Typically the Prosecutor received the case after the investigation was completed. As a result of the ACAP grant preparation process, one prosecutor was designated to handle all arson cases in addition to other components of his case-load.

ARSON CONTROL INITIATIVES

ACAP Contribution
Total Partial None

Formation of Task Force

X

A task force was created to assist in preparation of the grant application. This group consisted of the County Fire Marshal, the Sheriff and Undersheriff, representatives from fire protection districts, the prosecutor and a representative of the insurance industry. The group continued to meet throughout the early portion of the grant period to develop policy, priority, goals and foster interagency cooperation.

Creation of Special Investigative Unit(s)

X

An investigative unit (the SPARC Unit) was created in the County Fire Marshal's office consisting of three investigators hired with ACAP funds and the two investigators previously in the office (one of the latter is a Sheriff's Deputy assigned to the Fire Marshal). Although primarily created to provide investigative services to the unincorporated areas, the unit was available to the entire county including cities with their own fire marshals. During the grant period, the Chief Investigator hired under the grant was replaced by the Fire Marshal who took over supervision of the unit. In addition, the Sheriff's Deputy returned to the Sheriff's office so that the unit was ultimately staffed by four investigators. After experiencing callouts of several investigators unnecessarily, the Fire Marshal instituted a policy under which the investigator on-call went to a fire and called any back-up needed based on his own initial assessment.

Data - Intelligence System Development

X

Another LEAA grant resulted in the implementation of a computerized on-line offense reporting system (SCORE). This system had the capability to collect arson data for the UCR system. However, additional programming was needed to enable data entry and retrieval to complete the monthly report of known arson offenses.

ARSON CONTROL INITIATIVES (continued)

ACAP Contribution
Total Partial None

Equipment and Laboratory Support

X

ACAP funds were used to purchase portable radios, cameras, 2 sniffers, and other investigative equipment. In the past, samples were sent to the state crime lab in Seattle and due to delays in turnaround by that lab, to the FBI lab. A satellite lab in Everett, the county seat of Snohomish County, was being planned. This lab was not constructed during the grant period and the unit began to use private labs. On occasion, insurance companies paid for use of a private lab.

Training Support

X

The designated prosecutor attended the National College of District Attorneys workshop on arson and other programs using ACAP funds.

Three investigators hired under the grant attended several training sessions including the National Fire Academy's program and a program sponsored by the FBI.

Public Information Activities

X

The projects media campaign consisted of issuing news releases and public service advertisements to local newspapers and development of brochures for distribution at public speaking engagements. Snohomish County participated in the statewide hotline and reward program and obtained posters for use at burned buildings.

Juvenile Education and Treatment

X

Unit personnel provided counseling services to juvenile foresetters and worked with the school and the families involved. Referral to the judicial system was made only when necessary. Even after such referrals, unit investigators remained involved in developing community service or restitution alternatives to incarceration.

State: Louisiana
Area Served: Baton Rouge
(Although the original ACAP plan proposed a parish-wide project, the Sheriff's Office declined involvement, and the Arson Squad's work was restricted to the city limits. However, the DA does have jurisdiction throughout East Baton Rouge Parish)
Population: 4,000,000
Land Area: 472 sq. miles
Grant Recipient: East Baton Rouge Parish District Attorney
Budget: \$163,045
Duration: 2/15/80 - 6/15/81
Contact: Ms. Chrissie Curtis
Telephone No: (504) 389-3400

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION (City of Baton Rouge only)

Police Depts.: 1 # Fire Depts.: 1 Fire Service Budget: n/a
Police Personnel: n/a # Fire Personnel: n/a Arson Inv. Budget: n/a

Powers of Fire Investigators:

The Police Department detectives who are on the Arson Squad have peace officer status.

FIRE DATA

Total Fires: 477 (building)
Arson Investigations: 319
Fires Attributed to Arson: 93
Estimated Dollar Loss: \$466,920
Deaths: civilian n/a firefighter n/a
Injuries: civilian n/a firefighter n/a

Reporting Period: 1978
Criteria for Investigation:
Liberal criteria is used for calling in the Arson Squad. Called in by the District Chief in charge of fire if arson is suspected. If cause cannot be determined, an incident report is filed with cause listed as "unknown." The Arson Squad will investigate once such a report is received.

ARSON INVESTIGATION CAPABILITIES

Organization: The Baton Rouge Arson Squad is composed of police detectives and fire investigators working in two-person teams. The squad is under the joint supervision of the senior fire investigator and police detective. The teams work very closely with DA investigators who are called in simultaneously with Arson Squad investigators.

The responsibilities of the various members of the team are as follows:

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ARSON INVESTIGATION CAPABILITIES (continued)

DA Investigators: The DA investigators transport evidence to the lab (videotape, photography, fingerprinting) and assist in interviewing. They are also available for surveillance, keeping track of witnesses, and advice on warrants. DA investigators are on call 24 hours per day, two weeks on/two weeks off.

Police Detectives: Police detectives are responsible for interviewing witnesses and suspects.

Fire Investigators: Fire investigators determine cause and origin, and interview firemen. They identify areas to be photographed, and retrieve/package evidence. Fire and police investigators do preliminary reports based on fire incident reports. For followup, a police file number is drawn, and police offense reports are completed.

Scope: All possible arson cases are assigned to the Arson Squad.

Police-Fire Roles: The Arson Squad is composed of police detectives and fire investigators working in two-person teams.

Links with Federal Agencies: ATF investigators occasionally work with the Arson Squad on particular cases.

System of Prosecution: An arson prosecutor has been assigned to handle all arson cases in the DA's office. The Arson Squad notifies a prosecutor early in cases, because of early DA investigator involvement. The assistant DA may be called to the scene of serious fires. The Arson Squad also consults the assistant DA about warrants.

The interaction between the Fire Department, Police Department, and District Attorney's office has changed markedly since the ACAP grant. Previously, there were very few arson prosecutions and little if any coordination with the DA's office.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None

Formation of Task Force	_____	_____	X
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Task Force included the District Attorney, Fire Chief, and representatives of volunteer fire departments, Chamber of Commerce, State Fire Marshal's office, and the insurance industry. Meetings were held irregularly, and activities largely involved publicity and general project coordination.

Creation of Special Investigative Unit(s)	_____	X	_____
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Arson investigation is handled by a special unit--the Baton Rouge Arson Squad. The Arson Squad receives assistance--particularly in the area of evidence collection and handling--from two District Attorney investigators who have a well-equipped crime scene van at their disposal. In addition, there is a designated arson prosecutor in the East Baton Rouge DA's office. Although the DA investigators are formally in charge of an investigation, they rarely choose to exercise such control.

ARSON CONTROL INITIATIVES (continued)

ACAP Contribution		
Total	Partial	None

Data - Intelligence System Development	_____	_____	X
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There is no automated system in place for arson-related statistics. The Arson Squad maintains a manual name file of suspects.

Equipment and Laboratory Support	_____	X	_____
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Investigative equipment purchased: One sniffer, two evidence collection kits, and a 35 mm camera. Before the ACAP project, the Arson Squad had no specialized equipment.

Other equipment purchased: One typewriter, portable paging units for the Arson Squad.

There is a gas chromatograph (at the State Police lab) available for arson analysis, but only at night and on weekends. The lab has provided investigators with guidance on the preservation and packaging of evidence. Turnaround time is approximately two weeks on arson cases.

Training Support	_____	X	_____
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Received by Investigators:

Investigator #1: Attended a two-week seminar in Austin, Texas, presented by the Texas Department of Public Safety.

Investigator #2: Attended a two-week seminar in Austin, Texas, presented by the Texas Department of Public Safety; also went to Bronx, New York City, for one week to observe arson investigations there.

Investigator #3: Attended a cause and origin seminar in Chicago.

Investigator #4: Completed LSU fire training and attended several other seminars.

Received by DA Investigator:

Investigator #1: Went to Bronx, New York City, for one week to observe arson investigations there.

Investigator #2: Attended ATF school on arson-for-profit.

Received by Police: The Arson Squad fire investigator gives a three-hour course on arson at the police academy.

Received by the Arson Prosecutor: Attended the NCDA course on arson prosecution. ACAP funds were used to provide arson awareness training to volunteer firefighters.

Public Information Activities	_____	_____	X
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The East Baton Rouge District Attorney, in cooperation with other law enforcement agencies and with the Chamber of Commerce, has established the "Stop A Criminal" (SAC) program. There is a 24-hour hotline into the DA's office, with supporting publicity throughout the parish (billboards and public service announcements on TV and radio). Plans were to include separate advertising about arson and the SAC hotline.

ARSON CONTROL INITIATIVES (continued)

ACAP Contribution
Total Partial None

There is a reward program in conjunction with the hotline. Managed by the Chamber of Commerce, the reward fund was raised from donations by business and industry. Arson Squad investigators appear as speakers before community groups.

Other Preventive Measures

X

Baton Rouge is a major petro-chemicals industry center. There have been some mutual aid agreements in which companies have offered technical assistance to the Arson Squad.

State: Florida
Area Served: Broward County
Population: 1-1.75 Million (seasonal variation)
Land Area: 600 sq. miles
Grant Recipient: Broward County Sheriff's Department
Budget: \$120,105
Duration: 18 months
Contact: Sgt. James Walkup
Telephone No.: (305) 765-8551

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION

Police Depts.: 29 # Fire Depts.: 43 Fire Service Budget: n/a
Police Personnel: 1800 # Fire Personnel: 700 Arson Inv. Budget: \$184,000
Powers of Fire Investigators: Fire investigators have no police powers.

FIRE DATA

Total Fires: 751
Arson Investigations: 145
Fires Attributed to Arson: 53
Estimated Dollar Loss: n/a
Deaths: 2 civilian 2 firefighter 0
Injuries: n/a civilian n/a firefighter n/a

Reporting Period: 1980
(unincorporated areas only)
Criteria for Investigation:
Fires where injuries or deaths occur or where the officer in charge determines the cause to be incendiary or where he cannot readily determine cause.

ARSON INVESTIGATION CAPABILITIES

Locus: Both the bomb and arson squad of the sheriff's department and the county fire marshal's staff investigate fires.

Organization: Two police detectives report to the sergeant in charge of the sheriff's bomb and arson squad. Two code enforcers report to the county fire marshal.

Scope: All criteria fires in the unincorporated areas of the county and in the minor municipalities.

Police-Fire Roles: Both fire marshal's and sheriff's investigators determine cause of criteria fires. Sheriff's investigators follow up on incendiary fires and fire marshal's investigators follow up on accidental fires.

Links with Federal Agencies: ATF and FBI representatives attend the monthly meetings of local investigators. The bomb and arson squad has worked cases jointly with each agency.

System of Prosecution: Within the career offenders section of the state attorney's office, three attorneys handle all arson cases. Arson cases constitute a very minor portion of their caseload.

ARSON CONTROL INITIATIVES

ACAP Contribution
Total Partial None

Formation of Task Force

_____ X _____

No task force of policy makers exists. However, a monthly "match" meeting is held by investigators from the police and fire departments of the county. Representatives from the state attorney's office, insurance industry, ATF and FBI attend.

Creation of Special Investigative Unit(s)

_____ _____ X

No change was made in the structure of existing investigation units. However, some of the workload on these units was reduced by training individual fire fighters and police officers in some departments to carry out some scene investigations unassisted.

Data - Intelligence System Development

_____ X _____

The grant has funded the implementation of a computerized county fire incident system using the NFIRS programs. This is not merely participation in the NFIRS system--instead data conversion is done by the county and a county data base is maintained.

A name file of suspects, victims and witnesses has been created and is being converted to computer media.

Equipment and Laboratory Support

_____ X _____

A gas chromatograph was purchased under the grant for the county crime lab reducing average turn-around time on samples from six to two weeks.

The grant provided the following equipment to the bomb and arson squad of the sheriff's department: protective clothing, breathing equipment, portable flammable liquid detectors, shovels, audio visual equipment, and office furniture.

ARSON CONTROL INITIATIVES (continued)

ACAP Contribution
Total Partial None

Training Support

_____ X _____

Three to four hour arson awareness training seminars were given to the majority of the 43 fire and 29 police departments in the county.

Two of the sheriff's office investigators and approximately 10 investigators from other fire departments in the county received investigator training provided by the Florida state ACAP grant.

Topical presentations are made at the monthly match meetings of investigators by speakers such as the county medical examiner and the state's attorney.

Public Information Activities

_____ X _____

Radio and television spots are provided under the Florida state ACAP grant. Sheriff's Department investigators address local groups such as condominium associations and business groups.

Juvenile Education and Treatment

_____ _____ X

Juvenile defendants are sometimes referred to an existing juvenile counseling program operated by one of the municipalities with assistance from another federal grant.

CONTINUED

4 OF 6

State: New Jersey
Area Served: Middlesex County (occasionally render assistance outside the county as a professional courtesy)
Population: 612,464 (1975)
Land Area: 390 sq. miles
Grant Recipient: Office of Criminal Justice Planning, Middlesex County, P.O. Box 726, New Brunswick, NJ 08903
Budget: \$95,043
Duration: 2/1/80-4/30/81
Contact: Mr. John A. Penna, Criminal Justice Planner
Telephone No: (201) 745-3029

POLICE AND FIRE SERVICES IN RECIPIENT JURISDICTION
Police Depts.: 28 incl. # Fire Depts.: 82 incl. Fire Service Budget: n/a
college & park volunteer
Police Personnel: n/a # Fire Personnel: n/a Arson Inv. Budget: est.1979 \$500

Powers of Fire Investigators:
Investigators have police powers as they have completed 15 weeks of law enforcement training.

FIRE DATA
Total Fires: 2693 Reporting Period: 1980
Arson Investigations: 155 Criteria for Investigation:
Fires Attributed to Arson: 449 Fire or police depts. call
Estimated Dollar Loss: n/a the unit to suspicious and
Deaths: * civilian 20 firefighter 2 fatal fires.
Injuries: * civilian 62 firefighter 59

ARSON INVESTIGATION CAPABILITIES
Locus: The Middlesex Prosecutor's Arson Task Force, an arson unit, is composed of two-man teams housed in the County Annex Bldg.

Organization: Two fire investigators, one fire inspector, one sheriff's officer, one prosecutor's investigator, one fire analyst, one clerk, and one deputy commander report to the Commanding Lt. While all members of the unit are under the jurisdiction of the county prosecutor, ties with other agencies are present. From the County prosecutor's office are: the Lt. Commander, the deputy commander, one investigator, and the following grant positions: two fire investigators (formerly civilian volunteer firefighters), one civilian fire analyst, and one civilian clerk. Assigned full-time to the unit, but paid by the sheriff's office, is one sheriff's officer. The project began with the plan that municipalities would take turns assigning a fire inspector to the unit for three months; however, this was abandoned when the New Brunswick inspector was assigned permanently to the unit (city pays his salary), because there has been no need for more temporary manpower.

*All fires.

ARSON INVESTIGATION CAPABILITIES (continued)

Scope: Responsible for all criterion fires. This includes fires suspected to involve organized crime. The unit was requested to leave hazardous material investigations to the State Police Arson Unit.

Police-Fire Roles: The prosecutor always works with the police departments, and the arson unit has expanded this concept to the fire departments.

Links with Federal Agencies: The unit has worked with the ATF and FBI.

System of Prosecution: An assistant prosecutor is assigned to arson, he helps with case development and attends fire scenes when necessary.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>			X
While there is no formal Task Force, representatives of the prosecutors, volunteer and full-time fire departments, and law enforcement agencies meet on a monthly basis in order to maintain a high degree of cooperation and to discuss the needs of the county.			

<u>Creation of Special Investigative Unit(s)</u>	X
Prior to ACAP the Commanding Lt. and Deputy Commander investigated arson as detectives for the prosecutor. ACAP funds provided two fire investigators, a fire analyst and a clerk. The City of New Brunswick added a full-time fire inspector; the county contributed a Sheriff's Officer and a prosecutor's investigator. Local fire and police agencies make manpower loans to the unit and the agencies also assume the cost of the loans although this has not been needed. Two-man teams provide 24-hour coverage 7 days a week. The Sheriff's Office takes night calls and two investigators are on stand-by at home with vehicle available. Shifts rotate each week. The unit collaborates with several other investigative units including insurance companies and fire response teams from private industry. They also conduct stake-outs, particularly vacant buildings struck by multiple suspicious fires, or where people have been threatened with arson.	

<u>Data - Intelligence System Development</u>	X
Concurrent with the grant start-up the county began using the 902f reporting form. Every time a truck "rolls" this form is completed. The fire analyst, funded by ACAP, has organized an m.o. file and a crime file and collected specific details on fires. She uses the McBee Keysort Card system.	

ARSON CONTROL INITIATIVES (continued)

Equipment and Laboratory Support	ACAP Contribution		
	Total	Partial	None
<u>Laboratory support is provided exclusively by the State Police laboratory in West Trenton. ACAP funds provided basic investigation equipment; photographic equipment, a van, a station wagon, gas tracers, training slides, and office equipment.</u>		X	

<u>Training Support</u>	X
Received by investigators: Investigators received law enforcement training, as well as instruction in arson investigation and photography.	
Delivered by investigators: The high volume of training delivered by investigators was due to the grant. Training in awareness, detection, and reporting procedures was delivered to 283 firefighters as well as 12 volunteer fire departments and 40 policemen representing each city in the county. Moreover, training in arson prevention was provided to civic groups and other organizations.	

<u>Public Information Activities</u>	X
The project now publishes a monthly newsletter entitled "Dispatch 82" for police and fire departments. The newsletter covers the latest project developments. They also distribute literature on arson. Members of the unit make frequent in-person appearances, especially before civic groups, to provide arson prevention training.	

<u>Juvenile Education and Treatment</u>	X
Juvenile referral and counseling are now exclusively handled by the County or Municipal Juvenile programs, and the project anticipates future involvement in this area. Juveniles at the county level are handled through the Juvenile Intake Division of the Juvenile Court and Probation. At the municipal level, police Juvenile Aid Bureaus provide counseling for juveniles and their families. These bureaus are operated on a municipal or regional basis, and about seven began from SPA grants.	

<u>Other Preventive Measures</u>	X
The unit has done some work with insurance companies to support the pending legislation on insurance confidentiality. The legislation would help them target arson for profit.	

State: Connecticut
Population: 3,032,000
Land Area: 5,009 sq. miles
Grant Recipient: Connecticut Justice Commission, 75 Elm St., Hartford, CT 06115

Budget: \$1,060,395
Duration: February 3, 1980 - December 31, 1981
Contact: Craig Appel, Connecticut Justice Commission
Telephone No.: (203) 566-3500

LEADERSHIP	ACAP Contribution		
	Total	Partial	None

Role of Governor/Other Top State Officials:			X
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Governor Grasso appointed the Governor's Arson Task Force in April 1979. The Task Force submitted a comprehensive plan for arson reduction in October 1979. The ACAP grant application was based largely on the recommendations of the Task Force. A sub-group of the Task Force oversees ACAP grant activities.

Governors Grasso and O'Neill have been extremely committed to and visible in the anti-arson effort. They have held press conferences on the subject and made appearances at the launching of the ACAP program and awarding of the subgrants to the demonstration communities.

The State Fire Marshal has broad statutory authority for fire investigation and is in charge of certifying local fire marshals in every fire department.

Financial Assistance to Local Efforts: Connecticut provides the best example of such support among the ACAP state grantees. Subgrants were awarded to five demonstration communities: Hartford, New Haven, Stamford, Waterbury, and Enfield (abstracts of these projects follow the state abstract).

These communities were chosen to include Connecticut's major cities which suffer from the most severe arson problems as well as communities serviced completely or partially by volunteer fire departments.

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE CAPABILITIES

Local Requirement to Report Fires to State

Who Must Report: Local fire marshals must report all fires to the State Fire Marshal.

What Must be Reported: Basic fire incident and cause information must be reported in writing.

To Whom: State Fire Marshall.

Time Limit: Reports must be submitted within ten days of the incident.

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LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE CAPABILITIES (continued)

Statute Citation: Connecticut General Statutes, Section 29-59.

State Authority to Investigate Fires

Fire Categories that Must be Investigated: None.

Fire Categories that May be Investigated: All fires.

Who Investigates: State troopers assigned to the State Fire Marshal's office and State Attorney's Inspectors.

Police Powers of Fire Investigators: State Fire Marshal investigators and State's Attorney's Inspectors have full police powers.

Statute Citation: Connecticut General Statutes, Section 29-57.

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT	ACAP Contribution		
	Total	Partial	None
General Investigation		X	

Special Arson Unit: The State Fire Marshal investigators carry out cause-and-origin and some follow-up investigations. However, due to manpower shortages few follow-up investigations are performed.

Staffing, Location and Deployment: Nine troopers are assigned to the State Fire Marshal's office. They operate out of the central office in Meriden. ACAP subgrants funded State's Attorney's Inspectors dedicated to arson in three State's Attorney's offices: Hartford, New Haven, and Fairfield (covering Stamford). The State's Attorney's Inspectors are particularly concerned with physical evidence.

Who Uses: State Fire Marshal Investigators are requested by local officials all over the state.

How frequently: Municipalities vary considerable in their use of State Fire Marshal's Investigators. In several demonstration cities increased local capabilities have led to reduced demand for State Fire Marshal's Investigators.

Coordination with Locals: In practice, State Fire Marshal's Investigators respond to most serious and fatal fires. Otherwise, they respond mainly on request of local authorities. Most requests come from places without their own arson investigators. The State Fire Marshal's office has developed written guidelines to assist local officials in determining whether to call for state investigative assistance.

TRAINING

State Training Programs: Two agencies are involved in arson-related training: the State Fire Marshal's office (through the local fire marshal's certification course) and the Commission on Fire Prevention and Control (CFPC). The ambitious ACAP training program is coordinated by CFPC.

Courses Offered: Arson Detection Course: CFPC's goal is to offer detection training to all of the approximately 20,000 firefighters in the state. The 12-16 hour course has been offered at a number of locations around the state.

Arson Investigation Course: This 84-100 hour course includes live burns and investigations and is taught by a series of experts in various aspects of arson investigation. The course is based on the National Fire Academy with revisions keyed to Connecticut laws and regulations. Five sessions of the course have been offered under ACAP. Both the detection and investigation training will be continued under state funding.

Fire Marshal's Certification Course: This was once the exclusive province of the State Fire Marshal's office and although it was the only training provided to these officials responsible for cause-and-origin determination in their communities, only 3 of its 92 hours dealt with cause determinations. This has changed under ACAP. The course is now being taught jointly by the State Fire Marshal's office and CFPC, with the latter providing expanded treatment of fire cause determination and arson investigation.

Other Training: CFPC has offered several special presentations by experts on e.g., legal aspects of arson and arson prosecution. A two-day seminar on juvenile fire-setters was held and a two-day arson simulation was held for local training officers. CFPC is also developing a training package on arson for private security personnel. Training is provided by the State Fire Marshal's office on NFIRS reporting procedures.

TECHNICAL ASSISTANCE	ACAP Contribution		
	Total	Partial	None
State Lab Facilities		X	

Number and Location of Arson Laboratories: The State Police Lab in Meriden (approximate center of the state) handles most arson analysis in Connecticut.

Equipment: ACAP funds purchased the following equipment to be used exclusively for arson analysis: 2 gas chromatographs with recorders, 1 micro-processor for analysis of data from gas chromatographs, 1 infrared spectrophotometer and 1 Visible Spectrophotometer. The chemist is working on innovative analysis techniques.

Staff: The State Police Lab is under the direction of a highly trained and skillful chemist. Two additional technicians were hired with ACAP funds and they work exclusively on arson analysis.

Priority of Arson: With ACAP-funded staff and equipment, arson cases receive top priority.

Turn Around Time: Average turnaround time is 4 days.

TECHNICAL ASSISTANCE (continued)

Utilization: Local utilization of the lab is increasing due to improved capabilities and training and awareness activities associated with ACAP.

Evidence Standards and Procedures: The State Police Lab has established minimum evidence packaging standards: liquids must be in vials or jars and debris in unused, sealed paint cans. All samples must be submitted with information including: case identification, type of sample, name of the investigator, and type of analysis requested. Laboratory staff report a marked improvement in evidence submitted since promulgation of the standards.

Other Technical Assistance: State Fire Marshal's Investigators provide advice and technical assistance to local fire marshals on cause-and-origin determinations.

The ACAP project has facilitated interjurisdictional information exchange--e.g., New Haven has provided advice and assistance to several other communities on its arson early warning system.

STATEWIDE FIRE/ARSON DATA SYSTEMS

ACAP Contribution
Total Partial None

X

Fire Incident Data System: NFIRS is operational in Connecticut and significant progress has been achieved under ACAP. The State Fire Marshal's office oversees this effort.

Report Form: Basic NFIRS incident reporting forms and supplementary forms under development by a systems analyst working on a temporary basis for the State Fire Marshal's office. The supplementary forms are a "name form"--to collect information on suspects, witnesses, owners, adjusters, and others involved/connected--and an "investigation form" to include information on motives.

Compliance/Completeness: Over 70% of the state's fire departments are submitting incident reports on a regular basis. Due in part to training sessions presented to local officials on the reporting procedures, the quality of data is improving. Compliance is also increasing as localities learn of the benefits of making reports--e.g., they receive regular statistical reports of incidents and ignition factors and other feedback reports useful for management of local fire services.

Arson Intelligence/Investigation System: Information collected on the supplementary name and investigation forms, together with data from PILR, the State Police incident system, local police departments, and other states can form the basis of a system designed to identify patterns of fires and to carry out investigation inquiries on individuals. Although only the basic incident report form is currently in use, the ACAP-funded systems analyst has begun to develop a comprehensive intelligence and investigation information system.

STATE ARSON PROSECUTION CAPABILITIES

ACAP Contribution
Total Partial None

Special Arson Prosecutor: None.

Criteria for State-Local Prosecution: The Chief State's Attorney has legal authority to supercede state's attorneys, but rarely does so. There is little if any independent prosecution of arson in the Chief State's Attorney's office. The latter has only a very small staff of criminal attorneys and they concentrate their efforts on organized crime, welfare fraud, political corruption and other special investigations.

LEGISLATIVE/REGULATORY FEATURES CURRENT AND PROPOSED

Arson Statute: Recent legislation made arson a class A felony. Three degrees of arson are defined. The statute includes language interpreted to cover hiring a torch.

Immunity Law: Provides civil and criminal immunity for insurance companies furnishing information to fire officials both pre- and post-fire.

FAIR Plan: Recent change allows cancellation of coverage with 5-day notice to policyholders.

Municipal Liens: Recent change authorizes liens for demolition costs.

Public Adjusters: Regulations include extended list of prohibited practices and limit fees to 10% of settlement.

The Connecticut Justice Commission, the ACAP grantee, developed and submitted a package of further legislation and regulatory proposals in the following areas:

Reporting/Immunity: Expand immunity law to cover communications between insurance companies and State's Attorneys. Did not pass, but will be reintroduced.

Underwriting/Application/Inspection: Insurance fraud--a class D felony--knowingly making false or misleading statements on application for insurance passed.

Legal Procedures:

- o make arson a felonious crime of violence, thus allowing use of wiretaps and grants of immunity. Passed.
- o bring statute governing SFM investigations into compliance with Michigan v. Tyler-Tompkins, "reasonable" period for investigation defined as 48 hours. Passed.
- o administrative warrants for fire personnel to inspect fire-damaged properties. Passed.

OTHER ACTIVITIES

ACAP Contribution		
Total	Partial	None
	X	

Public Awareness: ACAP supported a statewide arson public awareness program implemented by the Commission on Fire Prevention and Control. A lesson plan, audience handouts, and slide-tape sets were developed for local presentation. The theme of the program is how arson hurts you, economically and socially: e.g., neighborhood blight; loss of jobs and income; loss of business taxes; increased insurance premiums, increased taxes to pay for fire and police protection; and loss of personal property. The program also includes discussion of arson motives, early warning signs, and steps citizens can take to combat arson.

State: Connecticut
Area Served: Enfield
Population: 46,932 (1975)
Land Area: 32.9 sq. miles
Grant Recipient: State of Connecticut Justice Commission
75 Elm Street
Hartford, CT 06115
Budget: \$32,000
Duration: 7/80 - 12/81
Contact: Mr. Craig Appel
Telephone No.: (203) 566-3500

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire/police Fire Investigation Teams. Fire Marshals located in Fire Department. Police Investigator located in Police Department.

Organization: Each of the five fire districts has a Fire Marshal to investigate fires. One police investigator reports to Police Chief.

Scope: Responsible for all criteria fires.

Police-Fire Roles: Fire Marshals investigate cause and origin; the police investigator conducts follow-up investigation.

Links with Federal Agencies: No work with federal agencies.

System of Prosecution: One Assistant State's Attorney and one State's Attorney Inspector are assigned to arson. Both are ACAP funded.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>			X

The Task Force was established concurrent with ACAP and, representatives include public officials, police and fire personnel.

<u>Creation of Special Investigation Unit(s)</u>		X	
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Prior to ACAP police and each of five Fire Marshals operated independently. The grant has served to coordinate arson investigation efforts, standardize operating procedures, and enhance overall cooperation. ACAP provides overtime compensation.

<u>Data Intelligence System Development</u>		X	
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The projects' records are manual. A major task has involved consolidating the reporting systems of the five fire districts. ACAP funds were used to purchase a professional office file system to facilitate record organization.

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None

<u>Equipment and Laboratory Support</u>		X	
The project utilizes the State Police Forensic Laboratory at Meridian. ACAP funds provided a hydrocarbon detector, a camera, and investigative equipment.			

<u>Training Support</u>		X	
Received by Investigators: Investigators and State's Attorney's Office received state ACAP training. Fire fighters attended ACAP Awareness training. Police recruits now receive four hours of arson training as part of their basic training.			

<u>Other Preventive Measures</u>			X
Signs are used on burned buildings. They coordinate with city agencies to board up or demolish hazardous buildings.			

State: Connecticut
Area Served: Hartford
Population: 138,152 (1975)
Land Area: 16.8 sq. miles
Grant Recipient: State of Connecticut Justice Commission
75 Elm Street
Hartford, CT 06115
Budget: \$32,000 (\$30,000 is insurance money)
Duration: 7/80 - 12/81
Contact: Mr. Craig Appel
Telephone No.: (203) 566-3500

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire/police Fire Investigation Team is located in the office of the Fire Marshal.

Organization: Three firefighters and two police detectives report to a supervisory fire lieutenant, who in turn reports to the Fire Marshal.

Scope: Responsible for all criteria fires.

Police-Fire Roles: Teams share all aspects of investigation. Fire investigators do not have police powers.

Links with Federal Agencies: Unit receives part-time assistance from the ATF.

System of Prosecution: One Assistant State's Attorney and a State's Attorney Inspector are assigned to arson. Both positions are ACAP funded.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None

<u>Formation of Task Force</u>			X
The Task Force was established concurrent with ACAP in February 1980. The Executive Committee is composed of: City Manager; Police Chief; Fire Chief; Fire Marshal; State's Attorney; Traveler's Insurance Company Counsel; Management and Budget Director; Director of Hartford Institute of Criminal and Social Justice; and Connecticut Justice Commission Planner. There are also ten general members. Each member serves on at least two specialized committees.			

<u>Creation of Special Investigation Unit(s)</u>		X	
The joint unit was established in 1974 as a reactive investigative effort, grant strategies address proactive activities.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Data Intelligence System Development</u>	—	—	X
Hartford has automated police records, but manual fire data. Traveler's Insurance has offered to provide substantial auxilliary equipment and a programmer to get NFIRS software onto the city computer.			
<u>Equipment and Laboratory Support</u>	—	X	—
The project utilizes the State Police Forensic Laboratory at Meriden. ACAP funds provide investigative supplies.			
<u>Training and Support</u>	—	X	—
Received by Investigators: Two detectives attended the state ACAP investigation course. Firefighters received ACAP Awareness training. Police recruits now receive four hours of arson training as part of their basic training.			
<u>Public Information Activities</u>	—	—	X
Donated bill board space is used to advertise the Fire Marshal's number for the local hotline.			
<u>Mobilization of Neighborhood Groups</u>	—	—	X
They are planning to have a fire prevention officer work the streets in neighborhoods with an arson problem.			
<u>Juvenile Education and Treatment</u>	—	X	—
They have an excellent program for the schools which was developed by a non-profit criminal justice institute and based on the Learn Not to Burn program. Traveler's Insurance provided financial support for this effort. Teachers were hired for development and implementation. The format continues progressively through all grades.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Other Preventive Measures</u>	—	—	X
Signs are used on burned buildings. They coordinate with city agencies to board up or demolish hazardous buildings.			

State: Connecticut
Area Served: New Haven
Population: 126,845 (1975)
Land Area: 18.4 sq. miles
Grant Recipient: State of Connecticut Justice Commission
75 Elm Street
Hartford, CT 06115
Budget: \$32,000
Duration: 7/80 - 12/81
Contact: Mr. Craig Appel
Telephone No: (203) 566-3500

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire/police Fire Investigation Teams housed in the fire headquarters under the Office of the Fire Marshal.

Organization: Three fire investigators and three police officers report to a supervising fire Captain, who in turn reports to the Fire Marshal.

Scope: Responsible for all criteria fires. Criteria for Investigation: District Chief determines suspicious, incendiary, undetermined, then Deputy Chief decides to send team. Automatic Response: Multiple alarm or fatalities.

Police-Fire Roles: Teams share all aspects of investigations; however, fire investigators do not have police powers. They are attempting to obtain powers through City Council.

Links with Federal Agencies: They work closely with the ATF and almost full-time with one ATF agent.

System of Prosecution: An ACAP funded State's Attorney Inspector works full-time with the unit on arson investigation. The State's Attorney's office is well versed in arson prosecution.

<u>ARSON CONTROL INITIATIVES</u>	<u>ACAP Contribution</u>		
	<u>Total</u>	<u>Partial</u>	<u>None</u>
<u>Formation of Task Force</u>			<u>X</u>
An informal Task Force was established in 1976. The Task Force was formalized concurrent with ACAP. Meetings are held monthly and are chaired by the Fire Chief.			
<u>Creation of Special Investigation Unit(s)</u>		<u>X</u>	
Interagency cooperation began in 1976 when the Mayor prompted police and fire agencies to work together on arson based investigations on the recommendations of a Grand Jury report on arson in New Haven. By mid-1977 the first teams were organized composed of two fire and two police investigators. The unit presently has a staff of seven. ACAP funds pay for some overtime.			

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ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Data - Intelligence System Development</u>	—	—	<u>X</u>
The project uses NFIRS and their own system which includes intelligence information. They are computerized. A sophisticated Early Warning System, developed with insurance funds, is in operation.			
<u>Equipment and Laboratory Support</u>	—	<u>X</u>	—
The project utilizes the State Police Forensic Laboratory at Meriden. ACAP funds provided a photoionization hydrocarbon analyzer, incidentals for the city gas chromatograph; photographic and recording equipment, investigative equipment, and audio-visual equipment.			
<u>Training Support</u>	—	<u>X</u>	—
Received by Investigators: Investigators and State's Attorney inspector received the state ACAP Investigative training. Substantial locally funded training was also received. Firefighters and line police officers have received Arson Awareness Training.			
<u>Public Information Activities</u>	—	—	<u>X</u>
Donated billboard space is used to advertise the Fire Marshal's number for the local hotline.			
<u>Mobilization of Neighborhood Groups</u>	—	—	<u>X</u>
They have a good program comprised of a full time Fire Prevention Officer who works the streets in neighborhoods explaining the harm arson creates in the community. This effort has proven effective in the black neighborhoods.			
<u>Juvenile Education and Treatment</u>	—	—	<u>X</u>
They will adopt a school program using a University of Connecticut program which employs the a version of Learn Not to Burn. The schools will provide teachers for development and implementation at no cost.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Other Preventive Measures</u>	—	—	<u>X</u>
Signs are used on burned buildings. They coordinate with city agencies to board up, clean up, or demolish hazardous buildings.			

State: Connecticut
Area Served: Stamford
Population: 105,151 (1975)
Land Area: 38.1 sq. miles
Grant Recipient: State of Connecticut Justice Commission
75 Elm Street
Hartford, CT 06115
Budget: \$32,000
Duration: 7/80 - 12/81
Contact: Mr. Craig Appel
Telephone No.: (203) 566-3500

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire/police Fire Investigation Team is located in the office of the Fire Marshal.

Organization: One detective reports to a police Lieutenant. Two (paid) fire investigators report to the (paid) Fire Marshal, who in turn reports to the Fire Chief. One (volunteer) Fire Marshal also participates in investigations.

Scope: Responsible for all criteria fires. Criteria for Investigation: Senior Officer's request, and all undetermined fires.

Police-Fire Roles: Fire investigators do cause and origin; detective does followup investigation. Fire investigators do not have police powers.

Links with Federal Agencies: The unit has worked on one or two cases with the ATF.

System of Prosecution: Stamford and Bridgeport both use one Assistant State's Attorney and a State's Attorney Inspector who are assigned to arson. Both are ACAP funded. The Inspector will go to Stamford to aid in the investigation of serious fires.

ARSON CONTROL INITIATIVES

ACAP Contribution		
Total	Partial	None

Formation of Task Force

		X
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A Task Force was established concurrent with ACAP in early 1980, although the first meeting was not held until June 1980. Voting membership includes: Fire Chief, Fire Marshal, police department, each of the five volunteer fire departments, Mayor's office, and the State's Attorney. Non-voting membership includes: insurance association, banking, real estate, Chamber of Commerce, and Board of Education.

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ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Creation of Special Investigation Unit(s)</u>	—	X	—
Prior to ACAP each Fire Marshal (one paid and five volunteer) operated independently within respective city fire districts and did not report to the State Fire Marshal. The new unit operates citywide, and the Fire Marshals now have an informal mutual aid agreement. ACAP provides overtime compensation for the unit.			
<u>Data Intelligence System Development</u>	—	X	—
NFIRS is in use. Manual name file has been developed.			
<u>Equipment and Laboratory Support</u>	—	X	—
The project utilizes the State Police Forensic Laboratory at Meriden. ACAP funds provided a hydrocarbon detector and investigative equipment.			
<u>Training and Support</u>	—	X	—
Received by Investigators: All investigators received state ACAP training, as well as USFA training program. Two successful ACAP Awareness Training courses were held for line fire fighters. Police recruits now receive four hours of arson training as part of their basic training. State's Attorney also received training.			
<u>Public Information Activities</u>	—	—	X
Eight donated billboards are used to advertise the Fire Marshal's number for the local hotline. The project receives excellent press coverage in the local newspaper.			
<u>Juvenile Education and Treatment</u>	—	—	X
The project established a liaison with the school's psychologist. School presentations are made targeting grades K-8.			
<u>Other Preventive Measures</u>	—	—	X
Signs are used on burned buildings. The coordinate with city agencies to board up or demolish hazardous buildings.			

State: Connecticut
Area Served: Waterbury
Population: 107,065
Land Area: 27.6 sq. miles
Grant Recipient: State of Connecticut Justice Commission
75 Elm Street
Hartford, CT 06115
Budget: \$32,000
Duration: 7/80 - 12/81
Contact: Mr. Craig Appel
Telephone No.: (203) 566-3500

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire/police Fire Investigation Team is located in the office of the Fire Marshall.

Organization: Two firefighters report to the Fire Marshal. One police detective reports to the Fire Marshal and the Police Commander.

Scope: Responsible for all criteria fires.

Police-Fire Roles: Units share all aspects of investigation; fire investigators lead cause and origin determination, while police lead follow-up investigation. Fire investigators do not have police powers.

Links with Federal Agencies: Unit does not work with any federal agencies.

System of Prosecution: One Assistant State's Attorney and one State's Attorney Inspector are assigned to arson. Both positions are ACAP funded.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>	—	—	X
The Task Force was established concurrent with ACAP.			
<u>Creation of Special Investigation Unit(s)</u>	—	X	—
The Fire Investigation Team was organized as a result of the grant. Prior to ACAP there was no coordination between agencies. Grant funds will pay for investigators' overtime.			

ARSON CONTROL INITIATIVES (continued)

ACAP Contribution		
Total	Partial	None

Data Intelligence System Development

X

Grant funds are being used to coordinate data files and to computerize the system. The work should be done by the end of the grant (12/81). Their early warning system consists of multiple name files.

Equipment and Laboratory Support

X

The project utilizes the State Police Forensic Laboratory at Meriden. They also have access to the Waterbury Police Forensic Laboratory. ACAP funds provided a hydrocarbon detector, investigative equipment, night lights, recording equipment, and a slide projector for courtroom presentations.

Training and Support

X

Received by Investigators: Waterbury's use of state ACAP training was very successful. In addition to training fire investigators and the State's Attorney's Office, four police officers attended the investigative course. These police officers then set up a 15-hour Awareness Training course which was run 24 hours a day to coincide with shifts. As a result, 100 percent of the police officers and 75 percent of the fire personnel have received this training.

Delivered by Investigators: None (but, see above).

Public Information Activities

x

Donated bill board space is used to advertise the Fire Marshal's number for the local hotline.

Juvenile Education and Treatment

x

No activities in this area, although they have discussed working with the Waterbury Delinquency Prevention Council.

Other Preventive Measures

X

Signs are used on burned buildings. They coordinate with city agencies to board up or demolish hazardous buildings.

State: Massachusetts
Population: 5,689,170
Land Area: 8,257 sq. miles
Grant Recipient: Massachusetts Committee on Criminal Justice, 110 Tremont St., 4th fl.
Boston, MA 02108
Budget: \$666,667 (plus supplemental grant of \$200,000)
Duration: January 1, 1980 - extension with supplemental grant to
September 30, 1982
Contact: Kenneth McBride, Department of the Attorney General, One Ashburton
Place, Boston, MA 02108
Telephone No.: (617) 727-5512

LEADERSHIP

ACAP Contribution		
Total	Partial	None

Role of Governor/Other Top State Officials:

X

The Massachusetts Arson Prevention Task Force, chaired by Lt. Governor Thomas P. O'Neill, III, was formed in June 1978 and issues its final report in November 1979. The report outlined many of the actions that became part of the ACAP project. The Lieutenant Governor and the Attorney General continue to be active in and supportive of anti-arson efforts in Massachusetts.

The State Fire Marshal's office is part of the State Police in the Department of Public Safety. The State Fire Marshal has limited control of state arson investigation efforts.

Financial Assistance to Local Efforts: No ACAP funds were provided directly to assist anti-arson activities at the local level in Massachusetts, except in Boston, the project pilot city.

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE CAPABILITIES

Local Requirement to Report Fires to State

Who Must Report: Fire chiefs must report all fires to the State Fire Marshal.

What Must be Reported: Basic fire incident information in a standardized format.

To Whom: State Fire Marshal.

Time Limit: Fires of incendiary, suspicious, and undetermined origin must be reported immediately; all other fires must be reported within 48 hours.

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE CAPABILITIES (continued)

Statute Citation: Massachusetts General Laws, Chapter 148, Section 2.

State Authority to Investigate Fires

Fire Categories that Must be Investigated: All fires of incendiary, suspicious, and undetermined origin.

Who Investigates: The statute requires the State Fire Marshal to "cause to be investigated" all incendiary, suspicious and undetermined fires. In practice, this means that the localities do the investigation with assistance from SFM "designees" (see below) if they request it.

Police Powers of Fire Investigators: Local fire investigators in Massachusetts do not have police powers. State Fire Marshal's "designees" are State Police officers with full police powers.

Statute Citation: Massachusetts General Laws, Chapter 148, Section 3.

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT	ACAP Contribution		
	Total	Partial	None
General Investigation		X	

Special Arson Unit: Central Arson Strike Force (CASF) is composed of five state troopers working out of Attorney General's offices. The CASF was to work full-time on arson cases with a focus on Boston, the ACAP project's pilot city.

Who Uses: Cities and towns may request investigative assistance from the State Fire Marshal designees. The CASF works largely for the Attorney General's office.

Coordination with Locals: Uneven; some cities and towns never request state assistance while others do quite often.

Special Investigation: CASF troopers are available for long-term, complex investigations of patterns of fires in which the Attorney General's office is interested.

On the civil side of the Attorney General's office, two investigators hired under the ACAP grant assist attorneys in the development of arson-related civil cases dealing with housing code violations, tax arrearages, and foreclosures.

TRAINING	ACAP Contribution		
	Total	Partial	None
State Training Programs:		X	

Training in arson detection and investigation are provided by the Massachusetts Criminal Justice Training Council (at the State Police Academy) and the Massachusetts Fire Academy. The State Police Academy offers an intensive two-week (80-hour) arson investigators course and the Fire Academy offers sequential courses in arson detection and investigation. The investigation courses offered by the two agencies are very similar.

Courses Offered ACAP training in detection and investigation was divided between the State Police Academy and the Fire Academy. Training was provided to CASF troopers, members of the Boston Arson Squad, and Fire Officers from the Boston Fire Department. In-service training in arson detection was provided to Boston firefighters using the Fire Academy's Phase I course.

Several two-day seminars for arson prosecutors were planned by the Criminal Justice Training Council.

TECHNICAL ASSISTANCE	ACAP Contribution		
	Total	Partial	None
State Lab Facilities			X

Number and Location of Arson Laboratories: The State Police Arson Laboratory in Boston handles arson analysis.

Equipment: No ACAP funds used for equipment purchase. Gas chromatograph in use; primary analytical technique is headspace analysis.

Staff: One chemist.

Priority of Arson: The chemist handles only fire and arson analysis.

Turn Around Time: N/A

Evidence Standards and Procedures: N/A

STATEWIDE FIRE/ARSON DATA SYSTEMS	ACAP Contribution		
	Total	Partial	None
		X	

Fire Incident Data System: Implementation of NFIRS is in progress in Massachusetts, with completion scheduled for January 1982. As of December 1980, personnel from 95 cities and towns had received training in NFIRS and 62 cities and towns were submitting reports.

Compliance/Completeness: Accuracy and completeness of reporting of fires to the State Fire Marshal remains a problem in many cities and towns. Two research assistants hired under the ACAP grant spent several months compiling statewide fire statistics for 1979. However, because it is impossible for the State Fire Marshal to monitor local reporting, his figures are sometimes inaccurate.

STATEWIDE FIRE/ARSON DATA SYSTEMS (continued)

ACAP Contribution
Total Partial None

Arson Intelligence/Investigation System: Early Warning System - Urban Educational Systems (UES), a non-profit organization in Boston, has developed a system for identifying buildings with high risk of arson. This system requires extensive manual data collection and is premised on a philosophy of heavy community involvement. Information was collected on more than 300 variables divided into economic stress factors on the building and characteristics of the owner. As part of the prevention component of the ACAP project, the UES approach was applied to three target neighborhoods in Boston with high rates of arson. Working closely with community groups in these neighborhoods, UES trained neighborhood researchers who researched more than 700 buildings. Those with "stress" factors suggesting a need for intervention were referred to the Attorney General's Civil Enforcement Unit, funded by the ACAP grant. This unit applied a wide range of intervention techniques including informal meetings with property owners, coordination with city building code officials in seeking abatement of violations, and various legal proceedings.

STATE ARSON PROSECUTION CAPABILITIES

ACAP Contribution
Total Partial None

Special Arson Prosecutor:

X

The ACAP grant funded four attorneys' positions within the Attorney General's office: the ACAP grant coordinator, a full-time arson prosecutor in the criminal division and two full-time attorneys in the Civil Enforcement Unit (Public Protection Bureau). This latter component is unique and noteworthy. Working closely with Urban Educational Systems, community groups and neighborhood residents, the attorneys and investigators of the Civil Enforcement Unit develop and implement strategies for direct action and litigation as leverages to convince property owners to correct code violations or remedy other problems with buildings that might make them high arson risks. The unit is also working with city agencies to have abandoned buildings boarded up so as to reduce the opportunity for vandals to set fires in them.

Criteria for State-Local Prosecution: In general, criminal prosecution in Massachusetts is very decentralized: the district attorneys have substantial autonomy and the Attorney General rarely intervenes in cases. The arson prosecutor in the Attorney General's office became involved in cases largely through informal means--tips and personal contacts. There are no established procedures for coordination between state and local prosecution in arson cases.

LEGISLATIVE/REGULATORY FEATURES CURRENT AND PROPOSED

Arson Statute: Mass. General Laws, Chapter 266. The statute provides a broad definition of arson--includes "causing" to be burned, "aiding," counselling, procuring such acts; includes occupied and unoccupied structures. Arson is a felony punishable by up to 20 years imprisonment. Arson of property other than buildings is punishable by up to 3 years imprisonment; arson for insurance fraud is punishable by up to 5 years imprisonment.

LEGISLATIVE/REGULATORY FEATURES CURRENT AND PROPOSED (continued)

Underwriting/Application/Inspection: Mass. General Laws Chapter 175, Section 98 (1978). Application for insurance must require sufficient information to determine actual cash value and actual ownership of the property. The application is considered part of the insurance contract.

Other Insurance Regulation:

- o Insurance companies are not liable for losses occurring in certain abandoned buildings. [Mass. General Laws, Chapter 175, Section 99 (1978)]
- o Fire insurance coverage for multi-unit residential structures is required to include relocation benefits. [Mass. General Laws, Chapter 175, Section 99 (1978)]
- o Overinsurance is an unfair and deceptive practice (remediable under the State Consumer Protection Act). [Mass. General Laws, Chapter 176D, Section 3 (1978)]

Municipal Liens: Mass. General Laws Chapter 175, Section 97A (1978). All outstanding municipal liens must be paid before the insured receives claim payment.

Landlord Disclosure: Mass. General Laws, Chapter 186, Section 21 (1978). Landlords of multi-unit residential buildings are required, upon written request of tenant, code or law enforcement official, to disclose the insurance company(ies) and amount of coverage on the building.

Rent Withholding: Mass. General Laws, Chapter 111, Section 127L. Tenants may withhold rent to pay for repairs to buildings in violation of housing codes.

Taking of "Decadent Property" by Eminent Domain: (legislation developed by civil enforcement component in Attorney General's office.) This legislation would enable municipalities, the Attorney General, or taxpayers to initiate legal action to transfer to municipal ownership or to new resident ownership, property that poses a risk to neighboring residents.

State: New Jersey
Population: 7,168,164
Land Area: 7836 sq. miles
Grant Recipient: New Jersey Department of Law and Public Safety, Division
of Criminal Justice, 13 Roszel Rd., Princeton, NJ 08540
Budget: \$659,157
Duration: October 1, 1979 - December 31, 1981
Contact: Bruce Merrill, Esq., Deputy Attorney General
Telephone No.: (609) 452-9500

LEADERSHIP	ACAP Contribution		
	Total	Partial	None
<u>Role of Governor/Other Top State Officials:</u>			<u>X</u>
In 1979, the Governor and Attorney General convened the New Jersey Arson Task Force. The Task Force Report, the "New Jersey Strategy for Arson Control," became the basis of the state's ACAP grant application, and the Task Force went out of existence. The Attorney General has held several press conferences on the arson problem, one of which marked the signing of the state's arson reporting-immunity law and the appointment of a new state-level body: The New Jersey Advisory Committee on Arson Control. This committee is composed of line managers of groups and agencies directly involved in fighting arson. The committee has been very active in developing and proposing legislative changes.			
The New Jersey State Fire Marshal has no investigative authority. Until recently, the Marshal was in the Treasury Department where he was mainly responsible for fire safety in buildings owned and leased by the state. The Marshal is now in the Department of Law and Public Safety, but his new role is not as yet fully defined.			
<u>Financial Assistance to Local Efforts:</u> None under ACAP, except in the form of training.			

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE CAPABILITIES

Local Requirement to Report Fires to State:

No statewide reporting requirements. Rather, the general powers of the County Prosecutors as chief law enforcement officers in the counties are understood to include the power to require local reporting of fires. The scope and details of the requirement are left entirely to the discretion of the county prosecutor and they vary widely across the state.

Statute Citation: New Jersey Statutes Annotated, 2A:158-1.

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE CAPABILITIES (continued)

State Authority to Investigate Fires

Fire Categories that Must be Investigated: None.

Fire Categories that May be Investigated: All fires. This power derives from the general authority or the State Police to investigate crimes.

Who Investigates: The State Police Arson Unit (SPAU).

Police Powers of Fire Investigators: Some municipal fire investigators (e.g., Newark, Irvington) have police power; SPAU investigators have full police powers.

Statute Citation: New Jersey Statutes Annotated, 53:2-1.

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT	ACAP Contribution		
	Total	Partial	None
General Investigation		X	
Special Arson Unit: SPAU conducts arson investigations, largely on request of local fire departments. However, SPAU may independently initiate investigations of particular patterns of fires if, for example, there are indications of organized crime involvement.			
Staffing, Location and Deployment: SPAU has 15 investigators (two of whom were added with ACAP funding) working out of 3 regional offices.			
Who Uses: Fire departments throughout the state, but mainly in rural areas without their own arson investigators.			
Coordination with Locals: In general, coordination is quite good. However, SPAU has had difficulty in some cities where there is hostility to state involvement. Under the ACAP project, county prosecutors are being encouraged to establish county or regional arson units to take over the responsibility of general investigation in rural areas of the state. Union County's unit utilizes volunteers from fire and police departments who work on a rotating basis. Plans call for the county/regional units to free SPAU investigators to concentrate on long-range complex investigations of patterns of fires identified by the intelligence analysts.			

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT (continued)

Special Investigation: Two intelligence analysts in SPAU, one of whom was added under ACAP funding, perform fire pattern analysis based on reports from local fire departments. For example, they have been examining possible patterns of fires in bars, diners, pizza parlors and adult book stores. If they discover a pattern, they may refer the case to SPAU investigators or encourage local authorities to investigate. In this way, the analysts hope to become a clearinghouse for arson intelligence information.

The Attorney General's office provides accountant support for complex arson investigations.

The Habitual Offenders Unit of the Department of Community Affairs' Bureau of Housing Inspection is working to identify property owners with records of substantial code violations who may also be involved in arson.

TRAINING	ACAP Contribution		
	Total	Partial	None
State Training Programs:	X		
Prior to ACAP, New Jersey had no state-level training in arson investigation and no coordinated approach to arson detection training. The Attorney General's office worked closely with the State Police and Rutgers University to develop a comprehensive training program.			

Courses Offered and No. of Students: Under the ACAP project, New Jersey developed a 90-hour investigation course which it hopes to establish as the standard course for the state. This would include a requirement that community college courses on the subject follow the state curriculum. A total of 204 individuals have completed this course.

A standard 21-hour course in arson detection and data reporting has also been developed and offered throughout the state on a "train-the-trainers" basis. Approximately 2000 people received this training. ACAP staff have made a particular effort to make this course available to volunteer firefighters. The state is also hoping to present the detection course on public television stations.

TECHNICAL ASSISTANCE	Total Partial None		
		X	
State Lab Facilities			
Number and Location of Arson Laboratories: There are four state police laboratories which serve designated regions. Most arson analysis is carried out at the Little Falls and West Trenton branches. The former lab serves the five populous northern New Jersey counties where the state's most severe arson problems exist.			

TECHNICAL ASSISTANCE (continued)

ACAP Contribution
Total Partial None

Equipment: ACAP funds were used to purchase a gas chromatograph dedicated to arson analysis at the Little Falls lab and a "310 trapping concentrator" for testing of innovative analytic techniques at the West Trenton branch.

Staff: Under the ACAP grant, an additional chemist and technician were hired for the Little Falls lab to work exclusively on arson analysis. Highly trained staff are available at the West Trenton lab as well.

Priority of Arson: Top priority is given to arson work at the Little Falls lab.

Turn Around Time: An evaluation at the Little Falls lab showed that in the six months prior to the ACAP grant, analysis in 27% of arson cases was completed within one week; in the six months after the arrival of the new ACAP-funded staff and equipment, 77% of arson cases were completed within one week.

Evidence Standards and Procedures: Instruction on laboratory use, evidence preparation and packaging was included in the state's arson investigation course.

STATEWIDE FIRE/ARSON DATA SYSTEMS

ACAP Contribution
Total Partial None
X

Fire Incident Data System: Many counties and municipalities in New Jersey admit that they do not know if they have an arson problem. The only statewide figures are based on annual surveys by the State Arson Network system which seems to contain numerous discrepancies. In order to address this problem, New Jersey has begun to implement NFIRS under the ACAP project.

Report Form: The standard NFIRS incident report is in use and the state developed supplementary forms to capture additional investigative information on code violations, tax arrearages, insurance coverage and individuals associated with the property and the processing of the claim.

Compliance/Completeness: NFIRS is being implemented on a volunteer basis in New Jersey. Middlesex and Union Counties, the first to join the system, have reporting rates of 80-85%. Additional counties are being enlisted gradually and initial reporting rates of about 60% are expected. The state's arson detection course includes instruction on the reporting procedures and the State Fire Marshal has been visiting counties to encourage their participation in the data system.

STATEWIDE FIRE/ARSON DATA SYSTEMS (continued)

ACAP Contribution
Total Partial None

Arson Intelligence/Investigation System: SPAU intelligence analysts hope to act as a clearinghouse for intelligence information. Once the basic NFIRS system is in place, investigative systems based on the data collected on the supplementary forms, may be considered.

STATE ARSON PROSECUTION CAPABILITIES

ACAP Contribution
Total Partial None
X

Special Arson Prosecutor: Under the ACAP project, a "legal advisor" was designated in the Attorney General's office to assist the State Police Arson Unit in investigations and prosecutions, particularly of complex arson cases. An attorney in the Habitual Offenders Unit of the Bureau of Housing Inspection handles legal action against persons with substantial records of code violations. Otherwise, there is little direct involvement of state-level prosecutors (see below).

Location: Attorney General's office; Bureau of Housing Inspection.

Staff: Three attorneys (one is ACAP project director).

Criteria for State-Local Prosecution: Prosecutorial authority is quite centralized in New Jersey. The State's Criminal Justice Act of 1970 vested tremendous authority in the Attorney General as chief law enforcement officer, including "general supervision over... County Prosecutors." This power is understood to mandate adoption of standard procedures for all County Prosecutors. These are embodied in a State Prosecutor's Manual. This manual lays out detailed criteria and procedures for supercession of County Prosecutors. In practice, however, the Attorney General's office rarely supercedes and the vast majority of supercessions are due to conflicts of interest rather than to the substance of the case. The Legal Advisor is available to offer advice and technical assistance to county arson units and County Prosecutors.

LEGISLATIVE/REGULATORY FEATURES CURRENT AND PROPOSED

Arson Statute: New Jersey Statutes Annotated 26:17-1 et seq. arson-for-hire is a crime of the first degree carrying a penalty of 10-20 years imprisonment; aggravated arson is a crime of the second degree (5-10 years); arson is a crime of the third degree (3-5). Legislation now pending would upgrade aggravated arson and arson crimes of the first degree and second degree, respectively.

Reporting - Immunity Law: Signed into law in 1981.

Municipal Liens: Certificate required on municipal taxes; any arrearages must be paid from insurance proceeds before insured receives payment. Bill pending to amend tax lien law to include demolition costs.

Disclosure: Registration of corporate ownership information with Bureau of Housing Inspection (proposed).

FAIR Plan: Corporate ownership information required in applications for coverage. Vacancy questionnaire required for coverage. Broad evidence rule used for determining coverage. 5-day cancellation notice; inspection within 14 days of effective date of coverage.

Certification of Public Arson Investigators: Pending legislation would authorize paid fire departments to organize regular arson investigation units whose members would have police powers while on duty. Such investigators would be required to complete:

- basic training course for police officers approved by the Police Training Commission
- arson investigation training approved by the New Jersey Department of Law and Public Safety, and
- any in-service training required by the state's Division of Criminal Justice.

Licensing of Public and Independent Arson Adjusters: Legislation pending in State Senate.

Underwriting/Application/Inspection: Two-tiered insurance applicant - proposed regulations under consideration by Advisory Committee on Arson Control.

OTHER ACTIVITIES

ACAP Contribution		
Total	Partial	None

Public Awareness Campaign:
The New Jersey Advisory Committee on Arson implemented a public awareness campaign including a statewide arson hotline and poster contest.

State: Maryland
Population: 3,922,399 (1970)
Land Area: 12,303 sq. miles
Grant Recipient: Governor's Commission on Law Enforcement and Administration of Justice, Suite 700, One Investment Place, Towson, Maryland 21204
Budget: \$588,167
Duration: 4/1/80 - 9/30/81
Contact: Director B.J. Quinn
Telephone No.: (301) 321-3636

LEADERSHIP

Role of Governor/Other Top State Officials:

In late 1978 the State Fire Marshal (SFM) and the Executive Director of the Governor's Commission on Law Enforcement and Administration of Justice established the Arson Advisory Committee to assess problems, analyze needs, and plan efforts. Membership includes the directors of: Maryland Fire and Rescue Advisory Council; Maryland Arson Investigators Association; Arson Control Association of Maryland; Maryland State Firemen's Association; Maryland Chiefs of Police Association; State's Attorney Coordinator; Governor's Commission on Law Enforcement and Administration of Justice; and, the SFM's office. The Governor himself has been active in the public awareness component of the grant. There is now pending legislation to establish an Arson Advisory Council; however, should the bill fail to pass the Governor will appoint such a council to keep funding in the arson area and to study Maryland's arson problem. In either case, the council will have representatives from: Maryland Fire and Rescue Advisory Council; the SFM's Office; the State's Attorney Coordinator; the Director of Juvenile Services; the president of the Maryland Arson Investigators Association; Arson Control Association of Maryland; Maryland Chiefs of Police Association; Maryland Senate; Maryland House of Representatives; an existing municipal or county arson program; Volunteer Fire Association; the insurance industry; and a sheriff. Meetings will be held monthly.

Financial Assistance to Local Efforts: The state ACAP grant was divided into a state component and seven subgrants to local efforts. The State of Maryland funnels a substantial amount of money to local police departments and investigation efforts.

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE CAPABILITIES

Local Requirement to Report Fires to State

Who Must Report: All paid and volunteer fire departments.

What Must be Reported: Agencies to report all fires to which they respond. In the pre-grant period 50% of the departments were using NFIRS, now all agencies are using it. The Commission has simplified the form and a statewide training program has been planned. By administrative rule, reporting shall include: cause, origin, and circumstances of the fire; factors contributing to the spread of the fire; injury of persons; extent of damage; insurance coverage; and other information as required.

To Whom: The SFM.

Time Limit: Within 10 days of the fire.

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE CAPABILITIES (continued)

State Authority to Investigate Fires

Fire Categories that Must be Investigated: Any fire of suspicious or undetermined origin.

Fire Categories that May be Investigated: The SFM is charged with enforcement of all laws on arson suppression and is empowered to conduct investigations.

Who Investigates: The SFM through 7 regional offices investigates for unincorporated areas or wherever assistance is needed. The SFM's investigators follow the investigation through to arrest as they have six months of police academy training and therefore have police powers. The investigators live in the area where they work so they have good community ties and short response time. By statute county and municipal fire marshalls serve as deputies to the SFM.

Statute Citation: MD. ANN. CODE art. 38A §8.

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT	ACAP Contribution		
	Total	Partial	None
General Investigation			X

Special Arson Unit: The State Fire Marshal has one main investigative office in Baltimore and six regional offices. The SFM also has six fire science engineers to handle code inspections for nursing homes and hospitals.

Location: The SFM's office is part of the Department of Public Safety and Correctional Services.

Staffing: Each office is staffed by one assistant chief, at least 3 investigators, and a secretary. Altogether there are 23 investigators, three explosives specialists, four supervising investigators, and support staff: about fifty personnel. Investigators have had police training and have full police powers.

Deployment: Since the large jurisdictions have their own arson units, the SFM has spread his resources fairly evenly across the balance of the state. Maximum response time 1.5 hours.

Coordination with Local Efforts: Investigators work very well with local agencies and will assist other arson units. Local police provide support services such as polygraph and patrol assistance.

No. of Investigations: FY 1979: SFM's office investigated 1874 fires.

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT (continued)

Special Investigation: While no agency has its own special investigation unit, some special services are available locally. In Baltimore City the prosecutor has investigators which can be called upon. However, more often federal assistance is requested: Montgomery and Prince George's counties often rely on investigative aid from the ATF and FBI.

TRAINING State Training Programs:	ACAP Contribution		
	Total	Partial	None
(1) The Maryland Fire and Rescue Institute, associated with the University of Maryland, has used ACAP funds to provide introductory and advanced arson awareness training to fire personnel. Originally planned for fire officers only, the classes were opened to any qualified fire personnel in order to keep classes full. The course qualifies as part of the 15 hours of annual training required of fire personnel. In the cities and larger counties everyone is trained. Overall they expect to reach 50% of firefighters and 100% of fire officers. In addition, each fire department has been given a manual.		X	

(2) Grant funds were also used for two sessions of NCDA training. Total attendance was 240, including grant investigators who were allowed to attend. The State Attorney Corodinator will now use the course to train any prosecutor who needs it (e.g., new hires). The prosecutors who attended the course returned to their offices and incorporated the course into in-service training. Fire investigators have reported more effective prosecutions since the training. They have planned a one-day follow-up seminar to tie up any loose ends or questions. One attorney from each office will be invited. As with police and fire departments, every prosecutor's office received an Arson Manual.

(3) The SFM's fire investigators receive continuous in-service training. They have also had training for trainers, and attended the NCDA course.

TECHNICAL ASSISTANCE State Laboratory Facilities	ACAP Contribution		
	Total	Partial	None
Number and Location of Arson Laboratory Facilities: There is no state lab dedicated just to arson. The State Police main lab in Pikesville is the major facility. Additionally, there are mini-labs at each of the fifteen State Police barracks.			X

Equipment: Sophisticated gas chromatographs are available in the state police lab.

Staff: Two qualified chemists (Ph.D.s) who are also expert witnesses.

Priority of Arson: Arson analysis is given high priority.

TECHNICAL ASSISTANCE (continued)

Evidence Standards and Procedures: Covered in police academy and NFA training.

	ACAP Contribution		
STATEWIDE FIRE/ARSON DATA SYSTEMS	Total	Partial	None

Fire Incident Data System: Local agencies use NFIRS, they will soon be training on the simplified NFIRS form which include eight arson related questions. PILR data satisfies reporting statute.

Objectives: They hope in the future to link the NFIRS with UCR arrest data.

Report Forms: NFIRS; PILR

Compliance/Completeness: All jurisdictions are using NFIRS now.

Access: Printouts are available to the fire agencies.

STATE ARSON PROSECUTION CAPABILITIES

Special Arson Prosecutor: None at the state level.

Staff: Each jurisdiction has one elected states attorney, assistant attorneys, and larger offices have investigators. Larger jurisdictions may have an arson section; for instance, Baltimore City has one chief, two assistant attorneys, and a secretary to handle arson cases.

Stage of Involvement in Cases: The Attorney General funds the position of States Attorney Coordinator to work closely with local agencies and promote state-local coordination. The States Attorneys in Maryland will work with locals on case development, including attendance at the scene of the fire. The prosecutors are, therefore, familiar with the case by the time it reaches the prosecution stage. Cooperation is high and no state-local conflicts have arisen.

Criteria for State - Local Prosecution: MD. ANN. CODE art. 10, § 33A. State prosecution has jurisdiction under special circumstances to investigate crimes: multi-jurisdictional crimes, conflict of interest laws, violation of state bribery law. They have occasionally aided local arson investigations.

No. of Arson Cases Prosecuted by the State 1978/1979/1980: None.

TECHNICAL ASSISTANCE TO LOCALS

Nature of Assistance:

The State Police mobile laboratory and the grant-funded crime scene van provide limited help to local jurisdictions.

LEGISLATIVE/REGULATORY FEATURES CURRENT AND PROPOSED

Arson Statute: MD. ANN. CODE art. 27, §6-11. Model law based on National Fire Protection Assn. model.

Immunity Law: MD. ANN. CODE art. 38A, §57. Requires provision of information on insured involved in a fire.

Reporting: MD. ANN. CODE art. 38A, §8(k). Insurance companies to report fire losses to SFM within 10 days of adjustment. By agreement, PILR data is used to satisfy this requirement.

Public Adjusters: Regulatory legislation proposed.

Municipal Liens: Local agencies actively use liens for demolition and taxes. The Maryland legislation did have some loopholes, but there is a bill pending this year to close them.

Legal Procedures: Courts and Judicial Proceedings Title 10-402 (c)(2). Wiretaps are available for arson investigation. MD. ANN. CODE art. 38A, §§8(f), 8(g), 8(h). The SFM and deputies can enter and examine buildings, investigate, take sworn testimony under oath, subpoena witnesses and documents, and make arrests.

Pending Legislation: Bills on three arson-related topics are pending this year. Next year they expect to have a coordinated legislative package on arson that is even better. Pending legislation for this year includes:

- (1) Malicious Burning. This is presently a misdemeanor where damage is less than \$500, and so fire investigators would often ignore the crime in favor of felonies carrying a stiffer penalty. The bill would make damage up to or over \$25 a felony with a penalty of up to 3 years incarceration.
- (2) Offender Restitution. In an innovative approach to offender restitution (money, or community work up to 4,000 hours), this bill would permit the arsonist to be charged with the costs of dispatching the fire trucks.
- (3) Burning of Buildings. The impetus for this bill was a racetrack owner who torched his track, inadvertently causing injuries, but who could not be charged because it was his own property and he claimed he wanted to burn it. The bill would close this loophole and attach penalty of 3 years and/or \$5,000.

OTHER ACTIVITIES

Public Awareness:

Maryland has an extremely active media campaign. To end haphazard local efforts, a committee has been formed which meets every other month so local agencies can coordinate with state efforts and compare notes with other agencies.

The state hotline has not been very successful, as it is easier for tipsters to call their local police or fire station. While they have received some good tips from their advertising efforts, they feel a hotline at the state level is inefficient and plan to phase it out. They have done radio spots and two TV specials, and have found the stations to be quite supportive. They hope to tap State Police capabilities for TV commercials, having used them to record the radio announcements. Initial research as been done for a 15 minute film on Maryland's system of arson control; if funds for such a film could be found, they could use it for PTA meetings and other group activities. They would then like to develop a similar film for the schools.

The Property and Casualty Insurance Companies and the Maryland Arson Control Association sponsor a reward program. FAIR Plan has agreed to help keep the reward fund at \$5,000. The reward program has been successful. In 1980 two school children provided information which helped to solve a rash of school fires. The two children received rewards and substantial publicity was done on the story.

All burned buildings where arson is suspected have signs posted advertising rewards for arrest or conviction of the arsonist. Baltimore City used FAIR Plan funds to post extra busboards in an area with a rash of arsons, and the fires stopped. The signs are very large, so they are easily seen but cannot easily be moved or stolen. They are considering developing these placards for distribution to non-grant local jurisdictions.

Media cooperation has been excellent. Ninety percent of city papers run stories on suspect fires, as well as the hotline number, fire number, or police number. The project puts out a newsletter with a status report on arson cases in Maryland. Finally, they also distribute a variety of printed materials.

Juvenile Programs

The overall approach to juvenile firesetting in Maryland has been too informal, and they hope to improve it by including a juvenile component to the advisory council. To some extent they have succeeded in convincing cities that juvenile firesetting is a problem and that counseling programs are essential. In addition, a study has been coordinated with John Hopkins University to research juvenile firesetting.

Community Involvement: The Maryland Fire Watch is part of the State Crime Watch Program. They have brochures, slides, billboards and PSAs. The state is planning to coordinate arson information with the crime dog McGruff series. They will use the Crime Watch person do the PSAs as she is a professional TV person.

Housing: Maryland has an elaborate state housing code.

ACAP Contribution
Total Partial None

X

State: Maryland
Area Served: Annapolis
Population: 29,592 (1970)
Land Area: 5.8 sq. miles
Grant Recipient: Governor's Commission on Law Enforcement and Administration of Justice, Suite 700, One Investment Place, Towson, Maryland 21204
Budget: \$38,891
Duration: 4/1/80-9/30/80
Contact: Sgt. Simmsen, Capt. Ellis
Telephone No.: (301) 263-4686

ARSON INVESTIGATION CAPABILITIES

Locus: Annapolis Arson Task Force, a jointly staffed fire/police unit housed in the fire dept. under the Fire Prevention Bureau.

Organization: One fire investigator and one police investigator report to a supervising fire captain (part-time).

Scope: Responsible for all criterion fires in the city of Annapolis. Unit investigates bombings, and series of false alarms. Criteria for Investigation: Suppression officers report on suspicious, incendiary, or unknown origin; loss in excess of \$5,000.

Police-Fire Roles: The unit has responsibility for all fire investigations including those involving a crime, as investigators have had complete law enforcement training. Fire investigators have police powers for fire and related matters (includes arson).

Links with Federal Agencies: Work with all federal agencies when appropriate (e.g., ATF, FBI, IRS, Postal Service).

System of Prosecution: No formally-specialized arson prosecution, but tend to use one states attorney more than the others.

ARSON CONTROL INITIATIVES

ACAP Contribution
Total Partial None

Formation of Task Force

The Annapolis Arson Advisory Board was established 4/17/80. Membership includes: fire, police, prosecutors, insurance, Chamber of Commerce, mayor's office, banking, Juvenile Services Bureau, forensic engineers (private), a school vice principal, and psychologists (private and public). One function of the board has been to give the unit guidance on future targets as indicated by economic factors. Another function has been to develop juvenile programs and strategy.

Creation of Special Investigative Unit(s)

Prior to the grant, the Fire Prevention Bureau would assign inspectors to investigate cause and origin as needed. If arson was found, the matter was turned over to the police. Grant funds were used to procure a full-time fire investigator and the team concept was adopted. The unit now takes investigations through to prosecution. Initial results are encouraging. In 1979, before the project began, there were 7 arson arrests; last year (1980) there were 47 arrests; and, in the first 3-1/2 months of 1981 there have been 45 arrests with 23 arrests pending. Collaboration with insurance investigators has increased, particularly since they now have an immunity law. Special patrols and surveillance are conducted. For instance, last year's annual report found most arsons occurred Wednesday and Fridays between 4:00 p.m. and midnight so the unit would patrol at these times.

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Data - Intelligence Systems Development</u> UFIRS is used for fire incidence data and kept by the Fire Departments' Records Section. Investigators' reports are kept in the unit's office. While no formal early warning system exists, every fire department report is reviewed and they have been able to identify hot spots in this way.			X
<u>Equipment and Laboratory Support</u> They will have to discontinue their use of the ATF and begin using the state lab which gives a lower priority to arson analysis. ACAP funds provided photographic equipment and a sniffer. They now have an in-house photography lab.			X
<u>Training Support</u> Received by Investigators: All investigators have received police academy training and 3 wks. of NFA training. One states attorney attended an NCDA seminar on arson in Atlanta. Delivered by Investigators: The fire investigator and Capt. are certified instructors and have delivered 3-day annual arson training to line police and firefighters. In addition, the University of Maryland provided a one-day training session to fire officers.			X
<u>Public Information Activities</u> Have been waiting for state materials, hope to receive in July. Unit conducts speaking engagements for professional and community groups. Hotline reward signs are used on burned buildings and adjacent structures.			X
<u>Juvenile Education and Treatment</u> The Youth Service Bureau runs a Pre-arrest Counseling Service funded 75% by the state and 25% locally. The project uses this service and hopes to expand upon it. The project is working with school personnel to develop a school presentation on arson.			X

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Other Preventive Measures</u> As Annapolis is the state capital, they take advantage of their location by actively testifying on arson-related legislation. The Building Inspections Department has the power and responsibility to board-up vacant and burned structures. Next year they hope to identify all such buildings and bring them to the attention of the Department. Signs on burned buildings are used.			X

State: Maryland
Area Served: Anne Arundel County
Population: 341,695 (est. 1975)
Land Area: 417 sq. miles
Grant Recipient: Governor's Commission on Law Enforcement and Administration of Justice, Suite 700, One Investment Place, Towson, Maryland 21204
Budget: \$85,275
Duration: 4/1/80-9/30/81
Contact: Chief Smith
Tel. No: (301) 987-4010

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed police-fire "Arson Task Force," and fire-staffed investigation unit housed in Fire Dept. headquarters under the Fire Investigation Division.

Organization: Five fire investigators and the "Task Force" teams, (two fire investigators and two police investigators), report to the Division Chief.

Scope: Responsible for all criterion fires; fires resulting in injuries to civilians or firefighters; and new applications to the fire department. Criteria for Investigation: Officer on the scene finds fire to be of incendiary or suspicious origin; loss in excess of \$5,000; false alarms.

Police-Fire Roles: The units have jurisdiction over all fires, including those set to cover crimes (e.g., homicide). Police sometimes provide intelligence information, but very seldom become involved. All fire investigators have police powers granted by the county.

Links with Federal Agencies: They involve federal agencies when appropriate. Primary link is their use of the ATF laboratory.

System of Prosecution: Two prosecutors are assigned to handle arson cases. While they are usually too busy to do crime scenes, they are available for case development.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>			X
A Task Force was organized in May 1981. Represented are the volunteer and career fire service agencies; each law enforcement agency; media; Juvenile Services; Maryland State Police; and the Board of Education.			
<u>Creation of Special Investigative Unit(s)</u>			X
The arson unit began with one police investigator in 1956. As the workload increased, he was transferred to the Fire Department. Pre-ACAP, the unit had expanded to five			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
fire investigators and a division chief. These investigators do initial and follow-up investigation. With the grant, a new unit, called the "Arson Task Force," was organized. The "task force" is comprised of two fire-police teams. The grant pays for one police investigator and one fire investigator; likewise, the county pays for one police investigator. The "task force" only conducts follow-up investigations for serious fires. Their involvement comes about in one of two ways: (1) unit arson investigators find arson and may request "task force" investigation; or (2) Division Chief assigns the follow-up investigator to the "task force" based on his review of the initial investigation.			
The arson unit will collaborate with insurance investigators. Where they have a problem area or good information they will stake-out buildings. Police may provide extra manpower but primary responsibility during stake-outs remains with the "task force."			
Data - Intelligence System Development			X
Fire investigators write summaries and complete supplemental reports. All records systems are manual. Potential fire patterns are plotted on maps. When appropriate, they compile intelligence information on businesses and people.			
Equipment and Laboratory Support		X	
The project's laboratory support has been provided by the ATF; however, due to federal budget cuts this service will be discontinued; the project will begin using the State Police lab which is presently preparing for the increased volume. ACAP funds provided a camera, a sniffer, and two cars.			
Training Support			X
Received by Investigators: All investigators have received the following training: (1) 3 weeks NFA training on basic fire investigation (cause and origin); (2) 3 weeks Prince George's Academy on Criminal Law; (3) Maryland Fire and Rescue Association and other in-service training programs; (4) weapons training.			
Delivered by Investigators: All line police officers and firefighters have received arson recognition training. The state ACAP grant provided the prosecutor's training.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
Public Information Activities			X
The project makes community presentations using a movie and arson brochures. They will also be using state-provided bumperstickers and posters.			
Juvenile Education and Treatment			X
At present, juvenile intervention is limited. If parents call with a problem child, the project will talk to the parents and child together. It is hoped that a more formalized program will emerge due to Juvenile Services' participation on the Task Force. Arson presentations are made in schools in each class above the elementary level.			
Other Preventive Measures			X
They use signs on burned buildings advertising the unit's phone number line. They support bills backed by the Maryland IAAI (e.g., increasing penalties for malicious burning). They also work with the Public Works' Building Department to demolish or board-up vacant buildings.			

State: Maryland
Area Served: Baltimore City
Population: 849,946 (1975 estimate)
Land Area: 79 sq. miles
Grant Recipient: Governor's Commission on Law Enforcement and Administration of Justice, Suite 700, One Investment Place, Towson, Maryland 21204
Budget: \$117,501
Duration: 4/9/80-9/30/81
Contact: Dorine Riggins, Mayor's Office
Telephone No.: (301) 396-4370

ARSON INVESTIGATION CAPABILITIES

Locus: The Fire Investigation Bureau (FIB) is operated and staffed by the Fire Dept. The police arson squad is operated and staffed by the Police Dept.

Organization: Ten investigators report to one supervising battalion chief. Three police detectives report to the supervising sergeant.

Scope: All criterion fires in the City of Baltimore. The police arson squad investigates bombings. Criteria for Investigation: Doubt as to origin by company officer; multi-alarm fires; fires of a serious nature.

Police-Fire Roles: The bureau investigates cause and origin. If arson is detected, the police arson squad takes over. The police squad may call upon the bureau to assist with interrogation, case preparation, etc. Fire investigators have no police powers except the power of arrest on state-owned property.

Links with Federal Agencies: The ATF, FBI and IRS are involved as needed. The ATF has been working closely with the prosecutors.

System of Prosecution: Three prosecutors work full-time on arson (vertical prosecution). One state's attorney was funded by ACAP, funding will be continued through 4/82 with LEAA formula funds. Prosecutors are on call 24 hours and will do crime scene and case development. Formula funds provided fire gear for them. Extensive cross-training by fire investigators has helped the prosecutors understand the technical aspects of arson and the result has been an impressive conviction rate. The time constraints on prosecutors has lead them to begin training other prosecutors to handle arson cases, to allow them to continue intensive case development.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Formation of Task Force</u>			X
In anticipation of the ACAP grant, the mayor appointed a Task Force 12/29/79. Represented are police; fire; prosecutors; insurance; banking; community groups; city housing; public works; and federal agencies. In addition, other cities and counties send representatives. The Task Force meets every other Wednesday to review case progress and develop strategy; discuss training; and institute procedures to coordinate efforts. It is very effective.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
Creation of Special Investigation Unit(s)		X	
Grant funds provided two fire investigators to the pre-existing bureau. Collaboration with the insurance companies has increased due to the Task Force. Surveillance and patrol are conducted by the police squad. For instance, at a Task Force meeting it was decided that it was the responsibility of police to step up night patrol of schools. The police also use helicopters to patrol.			
Data Intelligence System Development			X
The FIB has manual records in the form of a card system. Investigatory reports are much like police officer reports. If arson is detected, the police arson squad will obtain the scene offense report and add to it their investigative reports. At an early Task Force meeting, concern was raised about numerous fires in a redevelopment district. As a result, the police and Mayor's Dept. of Planning discussed trying maps and overlays to identify patterns.			
Equipment and Laboratory Support			X
Laboratory support is provided by the Police Crime Laboratory, a well-recognized facility. LEAA formula funds provided quite a bit of equipment to the laboratory.			
Training Support			X
Received by Investigators: Bureau investigators have received NFA training, and in-service training at the University of Maryland's Fire Academy. The battalion chief is looking for high-quality specialized training. The police squad has received in-service training.			
Delivered by Investigators: Prosecutors have received extensive training from fire and police investigators, and have attended the state ACAP prosecutors' seminar. Line firefighters and police officers have received awareness training. (Note: Baltimore City has been one of the four cities chosen to receive technical assistance from the U.S. Conference of Mayors' Arson Pilot City Program beginning late April 1981.)			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
Public Information Activities		X	
Billboards and busboards were used to advertise the state hotline. Extra busboards were posted in high-risk areas, and a drop in the fire rate was noticed. Insurers provided business cards with the same information as signs used on burned buildings (including hotline number). These cards could be handed out at the scene to potential witnesses. Insurers also provided brochures, and films for group presentations (and training). The project participates in the statewide reward program funded by insurers.			
The city has used other federal funds to enter into a joint study with John Hopkins University on the cost of arson in Baltimore City. The study is in a final draft stage. They hope to use the study results in the second round of the public information campaign to provide statistics on losses, and also as a basis to promote legal restitution by arsonists by giving courts a foundation upon which to assess costs and increasing awareness as to the magnitude of public losses.			
Juvenile Education and Treatment			X
They have found a large number of fires are set by juveniles, and many defendants have a history of arson dating back to childhood offenses. The Task Force has therefore focused on juveniles, and insurers are conducting a Juvenile Firesetter Counseling Workshop in late April 1981 for operations people (e.g., Youth Services Bureau, Police Juvenile Services). After searching unsuccessfully for a juvenile pilot program on arson on which to model a local effort, they decided to open the local counseling network to handle arson. The workshop is the first step in this direction. In addition, last summer they began a program for all city recreation centers in which the Fire Prevention Bureau made arson presentations, and encouraged awareness and reporting. Then in the fall, this was continued in the schools at the elementary, middle, and junior high levels.			
Other Preventive Measures			
Signs on burned buildings are used. The insurance industry has kept them apprised of proposed insurance legislation. They have done a lot of work in the area of restitution; for instance, aside from the study, they have collected state statutes nationally which related to arson and restitution. The project also works with the city's Housing and Community Development Inspections Division to get vacant structures boarded up or torn down.			

State: Maryland
Area Served: Baltimore County (have had some impact outside the county, e.g., a request for information from the University of New Hampshire)
Population: 642,458 (1975 est.)
Land Area: 608 sq. miles
Grant Recipient: Governor's Commission on Law Enforcement and Administration of Justice, Suite 700, One Investment Place, Towson, Maryland 21204
Budget: \$61,210
Duration: 5/1/80-9/30/81
Contact: Captain Snyder
Telephone No.: (301) 494-4537

ARSON INVESTIGATION CAPABILITIES

Locus: Jointly staffed fire/police Fire Investigation Division (FID) housed in the Fire Department under the Investigative Services Division.

Organization: Five police detectives report to a supervising Sergeant; five fire investigators report to a supervising Captain.

Scope: Responsible for all criterion fires; police investigators also handle bombings. Criteria for Investigation: Any fire of suspicious or incendiary origin; all fires involving a fatality; all 3rd alarm fires.

Police-Fire Roles: Team concept. During determination of origin, the fire investigator assumes primary responsibility. If he feels it is arson, then lead responsibility shifts to the police investigator. The County's District Police will join their efforts from time to time, particularly when a criminal known to them is suspected. The police will join of their own initiative and will share their resources and information with the FID. (Note: This is not the sheriff's office. The sheriff's primary responsibility is managing the lock-up facilities). Fire investigators have the power to bear arms, but no other police powers.

Links with Federal Agencies: Close working relationship with the ATF; also work with the FBI. To a lesser degree they work with the IRS.

System of Prosecution: While there is no special arson prosecutor per se, there is an Assistant States Attorney to whom they take all their cases, who monitors arson cases, and will visit the scene. If he is busy another prosecutor will handle the case. The Assistant States Attorney is very active in arson control, he has attended several seminars, talked to the line firefighters, and is available at home.

ARSON CONTROL INITIATIVES

Formation of Task Force
While there is no task force as such, there are numerous professional and organizational meetings in which component members of the project actively participate and where they can discuss arson initiatives with other people in the field. Also, every six weeks there are grant meetings to discuss progress, overview the project, and evaluate state-level activities.

ACAP Contribution
Total Partial None

X

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Creation of Special Investigation Unit(s)</u>		<u>X</u>	
The FID was established in July of 1976 and was composed of four general fire investigative teams. The grant funded an additional team called the major fire investigation team which handles long-term investigations such as fraud; pattern fires, and other serious fires.			
<u>Data Intelligence System Development</u>			<u>X</u>
The Fire Department makes all narrative reports on police forms which are then entered into the police computer. All fires are also entered into a fire department logbook. Records can be retrieved by date, owner/occupant, or address.			
<u>Equipment and Laboratory Support</u>		<u>X</u>	
To date they have been using the ATF lab which has outstanding facilities; however, due to federal budget cuts they will no longer be able to use this lab. If they know a crime is involved they can use the FBI lab and will do so; otherwise, they will rely on the state lab. In-house they have their own evidence room. In addition, the grant funded a sniffer, a camera, and office equipment for the grant staff. Extra state ACAP funds will provide more photographic equipment and recording equipment (e.g., dictaphone).			
<u>Training Support (State ACAP only)</u>			<u>X</u>
Received by Investigators: Investigators have received 9-10 week introductory training; in-service training; 1 week firearms plus annual refreshers; attended two state seminars; and out-of-state seminars when money is available. All investigators received the NFA 3-week training.			
Delivered by Investigators: Police and fire personnel received extensive arson awareness training from the FID and State Attorneys office. Recruits are given arson recognition training by FID. Battalions get 2-3 hours of FID training using NFDA slides and the "Firebug" film.			
<u>Public Information Activities</u>			<u>X</u>
The FID speaks at numerous civic and professional meetings. The primary source of activities is from the Arson Control Council of Maryland, comprised of police and fire members, with heavy insurance involvement. This organization has funded a statewide Tip Award which offers a minimum of \$50 for information leading to arrest. The insurance industry provided financial support to arson control including literature advertising the reward system.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Mobilization of Neighborhood Groups</u>			<u>X</u>
Some work in this area through the police public relations department.			
<u>Juvenile Education and Treatment</u>			<u>X</u>
They have given some school presentations on arson. Counseling and referral of juvenile offenders are handled through the State Attorneys' Office.			
<u>Other Preventive Measures</u>			<u>X</u>
The FID works closely with all county agencies including the Buildings Dept. If there is a problem with vacant buildings, the Building Dept. will help them investigate and track down the owner and notify the owner to board up or tear down the building. They are quite efficient. If the owner of a burned building consents, they will post a sign on the building stating arson is suspected, along with their number and the state hotline number. Finally, the FID is lobbying, and using the states attorney and legal department to advocate upgrading the crime of burning another's personal property. Presently a misdemeanor, they hope to make this offense a felony for property valued in excess of \$1,000. (Current: MD. ANN. CODE art. 27 § 8.)			

State: Maryland
Area Served: Hagerstown (they plan to offer awareness training for fire companies in county. One investigator teaches 8 hrs. arson to police recruits at Academy serving Western Maryland)
Population: 35,862 (1970)
Land Area: 8.6 sq. miles
Grant Recipient: Governor's Commission on Law Enforcement and Administration of Justice, Suite 700, One Investment Place, Towson, Maryland 21204
Budget: \$1,000
Duration: 4/1/80-9/30/81
Contact: Chief Delaney
Tel. No: (301) 790-3200, ext. 104

ARSON INVESTIGATION CAPABILITIES

Locus: The arson unit is staffed and operated by the Fire Dept. under its Bureau of Fire Prevention.

Organization: Four investigators report to the Chief of the Bureau of Fire Prevention who reports to the Mayor.

Scope: All criterion fires in the city of Hagerstown, as well as false alarms. The SFM's office investigates bombs. Criteria for Investigation: Officer in charge suspects incendiary or suspicious origin.

Police-Fire Roles: The fire investigators carry through the entire investigation; however, cooperation with police is high and investigators do use police resources at times. Fire investigators have police powers.

Links with Federal Agencies: Work with federal agencies when appropriate, particularly ATF. They maintain a good working relationship with ATF.

System of Prosecution: No specialization: They take cases to any of the four prosecutors in the State Attorney's office. Cooperation is excellent and prosecutors are available day or night for fire scene or case development.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
Creation of Special Investigative Unit(s)			X

The unit investigators are sworn deputy fire marshals and work closely with local police, SFM's office, insurance industry, and other appropriate agencies. Where there is a rash of fires in a concentrated area, they conduct stake-outs, often using police resources and manpower. The arson unit has a 34% arrest rate and a 73% conviction rate.

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ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Data - Intelligence System Development</u>	—	—	X
The Bureau of Fire Prevention has two sets of files. The first pertains to building inspections. The second contains arson investigation reports which are filed by case number. There is a cross-reference between names of suspects and case numbers. Court status of each case is tracked.			
<u>Equipment and Laboratory Support</u>	—	X	—
They have used the ATF laboratory but with federal cutbacks they will have to use the State Police lab in Pikesville as of 7/1/81. ACAP grant funds provided a sniffer, a camera and accessories, and a fingerprint kit.			
<u>Training Support</u>	—	—	X
Received by Investigators: Investigators receive police academy and NFA training. Investigators usually attend at least one course each year.			
Delivered by Investigators: One investigator will be trained at the University of Maryland in arson instruction and will deliver arson awareness training to fire officers and firefighters (paid and volunteer). The training will then be offered to fire companies in the county. Another investigator delivers 8 hours of arson training to police recruits at the Western Maryland Police Academy.			
<u>Public Information Activities</u>	—	—	X
Participated in the state hotline and insurance TIP Awards program. The Bureau of Fire Prevention maintains excellent relationships with local media (T.V., radio, and newspapers), and has succeeded in getting good coverage for fire prevention and arson control efforts. In addition, the Bureau had 18 speaking engagements last year, reaching 819 people.			
<u>Mobilization of Neighborhood Groups</u>	—	—	X
They participate in a local "Crime Solvers" program. Fire and law enforcement agencies in the immediate area present a case a week to the public through T.V., radio, and newspapers. Calls with information are requested, and a reward is given of \$1,000 for information leading to arrest and indictment. The response has been very good, and rewards have been given.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Juvenile Education and Treatment</u>	—	—	X
The Bureau is initiating a "Learn Not to Burn" program for the schools.			
<u>Other Preventive Measures</u>	—	—	X
The project works closely with municipal agencies, including the building department. The Chief is active in supporting legislation and testifies at public hearings. Signs advertising the TIP reward are posted on burned buildings.			

State: Maryland
Area Served: . Montgomery County
Population: 586,631 (est. 1975)
Land Area: 493 sq. miles
Grant Recipient: Governor's Commission on Law Enforcement and Administration of Justice, Suite 700, One Investment Place, Towson, Maryland 21204
Budget: \$2,595
Duration: 4/1/80-9/30/81
Contact: Lt. Harding
Telephone No.: (301) 468-4153

ARSON INVESTIGATION CAPABILITIES

Locus: The Montgomery County Fire Investigation Unit is operated and staffed by the county Dept. of Fire and Rescue Service.

Organization: Three full-time fire investigators report to a supervising Capt. Four part-time investigators determine cause and origin.

Scope: All criterion fires and bombings. Criteria for Investigation: (See Special Unit section below.) Automatic response to large fires, fires involving explosives, serious injury or death.

Police-Fire Roles: The unit takes the lead in all investigations except those involving a homicide, in which cases they work with the police. Cooperation and support are very high. Fire investigators have police powers.

Links with Federal Agencies: They work regularly with the ATF. They pass information on to the IRS and assist them when necessary.

System of Prosecution: No special arson prosecution. About six prosecutors can handle arson cases well, and several have shown a real interest in arson.

ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Creation of Special Investigative Unit(s)</u>			X

Originally the fire investigators determined cause and origin and if arson was found the matter was turned over to police. In August 1976, the fire dept. took over the entire investigative responsibility. There are now four (part-time) cause and origin investigators who go to 90% of all fires, if they find arson or something suspicious they will tell their supervisor, who will get in touch with the Capt. who in turn makes the decision to send out the arson investigator. The unit collaborates

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
with many agencies in Maryland and out-of-state. Close contact is maintained with arson control agencies and there is a constant exchange of information. They collaborate with insurance agents as well. They use every resource available. The unit conducts special patrol and surveillance often, particularly in hard-hit areas. In addition, they often learn of individual or commercial establishments in financial trouble from the Sheriff and will stake-out the property which may be destroyed (e.g., restaurants, boats, cars).			
<u>Data - Intelligence System Development</u>			X
Fire incidence data is computerized on their own forms. Investigative reports are also computerized. Maps are kept for tracking fires and identifying high-risk areas. An information network allows them to collect some intelligence data; financial information from the Sheriff, and organized crime information from the county police.			
<u>Equipment and Laboratory Support</u>		X	
They have been using the ATF laboratory and plan to switch to the FBI lab. ACAP funds provided a sniffer, a camera, and a portable generator (to free engine companies).			
<u>Training Support</u>			X
Received by Investigators: All investigators have had 22 weeks of training at the Montgomery County Police Academy (one at Western Maryland Academy); NFA training; 40 hours of in-service training at University of Maryland; plus county and out-of-state seminars. Each holds an A.A. in fire science.			
Delivered by Investigators: Firefighters have received recognition training including: 3-day NFA (50 students); project training (150 students); and in-service training upon request. The project tries to include police detectives in arson investigation courses so they can work together more easily (e.g., terminology). Some prosecutors attended the SFM seminar.			
<u>Public Information Activities</u>			X
Good newspaper coverage. The project does some advertising of the TIP Award and the unit phone number.			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<u>Mobilization of Neighborhood Groups</u>			X
Participate in the Crime Solvers, a media program on a crime of the week which offers a reward for information leading to arrest and indictment for the publicized case.			
<u>Juvenile Education and Treatment</u>			X
The fire dept. has a Lt. who counsels and works with juveniles.			
<u>Other Preventive Measures</u>			X
They maintain close working relations with the Housing Dept. regarding vacant structures, and have a good relationship with the tax office as well. They participate in public hearings on arson legislation. Signs are posted on burned buildings, advertising reward and phone number.			

State: Maryland
Area Served: Prince George's County
Population: 678,513 (1975 est.)
Land Area: 485 sq. miles
Grant Recipient: Governor's Commission on Law Enforcement and Administration of Justice, Suite 700, One Investment Place, Towson, Maryland 21204
Budget: \$89,093
Duration: 6/15/80 - 9/30/81
Contact: Chief Kattington
Tel. No: (301) 633-2943

ARSON INVESTIGATION CAPABILITIES

Locus: Both the General and Technical Assignments of the Fire Investigations Division are operated and staffed by the Fire Dept. under its Bureau of Fire Prevention.

Organization: In general assignment, eight fire investigators report to four supervising Sgts. who report to the Division Chief (a Capt.). In Technical Assignments: (1) HIP: one investigator reports to a supervising Sgt.; (2) SCAT: one investigator reports to a supervising Lt.

Scope: All criteria fires and bombings (15-20/yr, mostly fire bombs). Fire Department applications and false alarms are done as time permits. Criteria for Investigation: Officer in charge feels fire is suspicious, loss over \$20,000; bombing; serious inquiry or death--for General Assignment (Technical Assignment see Special Unit, below).

Police-Fire Roles: Routinely use police resources. Police take the lead only in homicide, but will participate if other crimes are involved. Fire investigators have full police powers for arson investigation.

Links with Federal Agencies: Do work with ATF, FBI, and IRS particularly where organized crime or inter-state crime is involved.

System of Prosecution: No specialized arson prosecution, but a states attorney is assigned as liason to unit and does grand jury screening. Also a Police-Fire Legal advisor, a states attorney, helps with case development.

ARSON CONTROL INITIATIVES

Formation of Task Force

The Arson Advisory Council was established 6/3/80. Its members have a long-term relationship. Membership includes: police, fire, prosecutor, insurance, Chamber of Commerce, and Juvenile Services.

ACAP Contribution		
Total	Partial	None

		X
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ARSON CONTROL INITIATIVES	ACAP Contribution		
	Total	Partial	None
<u>Creation of Special Investigative Unit(s)</u>	_____	<u>X</u>	_____
<p>The investigative effort has been in existence for about twenty years. The General Assignment staff has two sgts. trained in polygraph and several trained in bombs. They routinely work with the SFM and work closely with insurance investigators. Where they cannot meet the criminal burden of proof, they help the insurers so that at least an economic deterrent is imposed.</p> <p>Under Technical Assignment/Special Services there are two arson units. The first is the ACAP funded High Incident Arson Area Technical Program (HIP). Grant funds provided one investigator and a supervising Sgt. The program began in June 1980. Two high incidence areas of similar characteristics were selected. One was designated as the target area, the other the control area. Offenses are plotted on maps to direct focus for target areas' covert patrol and covert surveillance efforts. The target area activities of the unit fall into three categories: (1) public education, including work with community groups and schools; (2) investigation; (3) prevention. The program was facilitated by the existence of comprehensive crime analysis data spanning the previous six years. Initial indications are that arson incidence has been reduced in the target area. Note also, the unit will conduct surveillance outside the target area when the need arises. The second unit under Technical Assignments is the Special Case Assignment Task Force. This unit is composed of one investigator (a retired police officer) and a supervising Lt. This unit is called in for follow-up investigations on fires involving a loss in excess of \$50,000 or serious injury or death, and which has gone unsolved for 14 days. When the investigator is not busy with units' activities, he spends his time working on school fires.</p>			
<u>Data - Intelligence System Development</u>	_____	_____	<u>X</u>
<p>Fire incidents are computerized using their Marginal Incidence Reporting System. Arsons are kept manually by structure type in a ledger, and maps are used to plot locations. One unique feature of the system is for each arrest a biographical sketch is computerized to provide profile data.</p>			
<u>Equipment and Laboratory Support</u>	_____	_____	<u>X</u>
<p>Since 1968 the ATF provided all laboratory support. Due to federal budget cuts this service has been terminated, and they will be using the FBI lab for all analyses. The county has its own photography lab.</p>			
<u>Training Support</u>	_____	_____	<u>X</u>
<p>Received by Investigators: Training for fire investigators includes: County Police Academy; annual SFM in-service training, (40 hrs. including field) at the University of Maryland; polygraph; U.S. Army Bomb Disposal School; various arson seminars.</p> <p>(continues)</p>			

ARSON CONTROL INITIATIVES (continued)	ACAP Contribution		
	Total	Partial	None
<p>Delivered by Investigators: Arson recognition training is delivered on request to volunteer fire departments, and is included as part of police recruit training. Police homicide detectives have received basic cause and origin training so they could better coordinate with fire investigators. Six states attorneys attended the SFM's prosecution training.</p>			
<u>Public Information Activities</u>	_____	_____	<u>X</u>
<p>The county funds its own local TIP award which has helped clear several cases. They also have their own 24 hour hotline number which has provided useful information. They use billboards to advertise, and arson bumper stickers are used on all county vehicles. They will make personal appearances upon request.</p>			
<u>Juvenile Education and Treatment</u>	_____	_____	<u>X</u>
<p>The fire department runs a Junior Firesetting Council through a trained fire department member. Referrals are made by Juvenile Services, the fire department, and civilians. Parents and the child are interviewed; if professional help is needed the child is referred to the Childrens Hospital for counseling. They have also made presentations in schools and are developing a multi-image presentation for Jr. High students.</p>			
<u>Other Preventive Measures</u>	_____	_____	<u>X</u>
<p>The project works routinely with the Housing Dept. to board up or tear down vacant buildings. There is continuous involvement with arson-related legislation, including sponsorship. Signs are posted on burned buildings advertising their reward program.</p>			

State: Illinois
Population: 11,131,000
Land Area: 56,400 sq. miles
Grant Recipient: Illinois Department of Law Enforcement, Room 103 Armory Bldg.,
Springfield, Illinois 62706
Budget: \$536,899
Duration: 7/1/80 - 12/31/81
Contact: Richard Mercurio, Illinois Dept. of Law Enforcement
Telephone No.: (217) 785-4286

LEADERSHIP	ACAP Contribution		
	Total	Partial	None
Role of Governor/Other Top State Officials:			X
In April 1980, Illinois organized the Governor's Arson Advisory Board to enhance co-ordination of all arson control activities. Meetings are held bi-monthly. Membership includes the Director of Illinois Law Enforcement Commission, the State Fire Marshal, the Director of the Police Training Institute (University of Illinois), the Director of Fire Services (University of Illinois), the Director of the Illinois Local Governmental Law Enforcement Training Board, the director of the Department of Insurance, and the (ACAP-funded) Executive III (who handles the data aspects of the grant). The Board has three committees (1) Training, (2) Information Systems, and (3) the Illinois Arson Reward. In addition, the Governor announced the state arson prevention campaign. Included are a state reward program and arson alert hotline; these are provided by FAIR plan funding of \$10,000. Further participation in arson control activities by the Governor is anticipated.			

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE AUTHORITY

Local Requirement to Report Fires to State

Who Must Report: All fire departments shall report to the State Fire Marshal (SFM) on all fires.

What Must be Reported: The statute requires written reports on the cause and origin determination. Of Illinois' 1,300 fire departments, two-thirds participate in NFIRS. As the majority of the states' fire departments are volunteer, some find the NFIRS too complicated and submit reports on a plain sheet (primarily using the prior SFM format). The SFM is required to keep records of all fires with facts, circumstances, and origin.

Time Limit: Reports to the SFM are to be made within one week of the fire.

Statute Citation: ILL. REV. STAT. Ch. 127-1/2, §6.

Statutory Authority to Investigate Fires

Fire Categories that Must be Investigated: All fire departments must investigate cause, origin, and circumstances of every fire commencing within 2 days of the occurrence (not including Sunday).

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE AUTHORITY (continued)

Fire Categories that May be Investigated: The Office of the State Fire Marshal (OSFM) has the right to supervise and direct the local investigation whenever it deems it expedient or necessary.

Who investigates: While the OSFM may determine cause and origin, it may not conduct any follow-up investigation. The Illinois Department of Law Enforcement (DLE) is given the power to investigate arson.

Statute Citation: ILL. REV. STAT. Ch. 127-1/2, §6 (SFM)
ILL. REV. STAT. Ch. 127, §55a (DLE)

Police Powers of Fire Investigators: The investigators of the OSFM have no police powers. Under home rule, some local investigators are given police powers by ordinance. In February 1981, an opinion of the Attorney General supported this type of peace officer status.

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT	ACAP Contribution		
	Total	Partial	None
General Investigation		X	

Special Arson Unit: Prior to 1977, OSFM investigators conducted the entire arson investigation at the request of the locals. The quality of the work performed often depended on the talent of the particular investigator. Then the OSFM was merged with the DLE and their investigators. In 1978, the OSFM was again a separate department charged, this time, only with determining cause and origin; the DLE conducted any follow-up investigation. The ACAP grant was used to provide equipment for investigators (primarily OSFM) and to develop a program approach to arson control.

The Illinois approach to arson investigation entails the use of fire-crime scene technicians--police units, called Operation START: Statewide Tactical Arson Response Teams. Initially begun in pilot areas, the program has been implemented statewide. The team concept is used to maximize manpower efficiency, and avoid duplication. The OSFM investigator receives the initial call, and responds. Once he has determined the cause and origin as arson, he may call the Crime Scene Technician to pick up equipment and assist in evidence collection. The DCI (DLE's Division of Criminal Investigation) agent is then called out for the follow-up. Requests for assistance may also be made directly to the Crime Scene Technician or DCI agent. A hotline is available for locals to request assistance or just ask for information regarding their investigation.

ACAP equipment for this component is: basic investigative equipment, protective clothing, office equipment, four portable water pumps, two generators, one arson van, and sixteen gas sniffers.

Additional investigative assistance is available to local agencies and the DLE from the Property Loss Research Bureau, an affiliate of American Mutual Insurance Alliance. The Bureau provides investigative and defense assistance, as well as national educational activities.

Staffing, Location and Deployment: The OSFM has sixteen offices statewide and one fire investigator at each office. There are nine crime scene technicians, one posted at each of the seven DLE laboratories, and two working out of their homes. The DLE has 294 agents located in sixteen DCI zones, while any one of the agents could work on an arson case, actually 3-4 agents do the bulk of investigations.

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT (continued)

Who Uses: Fire and Police departments in all areas of the state.

How frequently: On average, OSFM opens 98 investigations per month; DCI opens about 11 arson investigations per month.

Coordination with Locals: Well developed procedures governing local authorities' requests for assistance from OSFM and DCI, through operation START.

No. Investigations per period: 134 DCI investigations in 1980; no exact figures available on number of OSFM investigations.

Special Investigation: DCI provides specialized investigative services--e.g., intelligence analysis services.

TRAINING	ACAP Contribution		
	Total	Partial	None
State Training Programs:		X	

The Illinois Local Governmental Law Enforcement Officers Training Board is responsible for certifying courses for local law enforcement and reimbursing training costs up to 50%. The Board decided to refrain from certifying numerous arson courses until a single complete course could be developed. An Ad Hoc Committee was named to adopt one 40-hour and one 80-hour arson investigation course. The DLE uses these two courses now in its grant training component.

The DLE's Training Coordination Section provides specialized and in-service training to local law enforcement agencies. Grant funds will be added for a police training specialist and a clerk to their staff to coordinate the grant-funded training programs. Prior to the grant, arson investigation training was minimal, the primary effort consisted of DLE 3-day workshops for local police and fire personnel.

Other training in Illinois includes 5 hours of arson training for all DLE cadets, 6 hours of basic investigation, and 3 hours of in-service investigation. Insurance companies may offer training to their personnel in claims adjusting and in some cases, arson detection as well. The OSFM has run some arson investigation and NFIRS use seminars for local agencies.

Training materials provided by ACAP are: audio visual equipment, consultants, office equipment, training materials and handouts.

Courses Offered and No. of Students: The ACAP training program has been a tremendous success. Praise of the courses has been widespread, including the ATF Chief and the Chicago Bomb Squad. They have four people working full time on arson courses, not including the instructors. The courses are evaluated and revised continually. Local fire and police agencies are encouraged to send teams to courses and this has resulted in better inter-agency understanding when the personnel return home. By December 1981, 55 training programs will have been conducted, with 1596 federal, state and local personnel trained. The following is a summary of the training program, 1980-81.

TRAINING (continued)

No. Courses	Duration	Course	Total No. Trained	Students
15	3-day	Arson Investigation Workshops	224	DCI Agents
6	3-day	Regional Arson Investigation Training Workshop	170	Local Investigators
2	2-day	Regional Training Workshops	59	Local Fire and Police Officers
14	1-day	Regional Training Workshops	421	Local Fire Districts Administrators and other personnel
9	80-hr.	Specialized Arson Investigation Techniques	362	Federal, state, local investigators
9	40-hr.	Arson Investigation Refresher Course	360	Federal, state, local investigators
n/a	1-day	Prosecutor training	n/a	Prosecutors

On 2/23/81 the first prosecutor training will begin; it will be a one-day course. They hope to develop this course into a regular program.

TECHNICAL ASSISTANCE State Lab Facilities

ACAP Contribution		
Total	Partial	None
	X	

Number and Location of Arson Laboratories: All seven DLE labs are equipped and staffed to handle arson analysis.

Equipment: ACAP funds used to purchase strip chart recorder, gas chromatograph, and trapping concentrators. Primary analytical technique is headspace analysis.

Staff: Twelve DLE lab staff are involved in arson analysis. All DLE lab personnel hold at least a bachelors degree in Chemistry, Forensic Chemistry, or a related natural science and are trained in use of the gas chromatograph to identify petroleum distillates. The training also includes instruction on court testimony.

Priority of Arson: Top priority given to evidence from fatal fires or cases with high investigative need. Otherwise, arson analysis included with other "trace evidence" cases on a first-in, first-out basis.

Turn Around Time: Fatal fires: 1-2 days
Other fires: average 2 weeks

Evidence Standards and Procedures: DLE has developed written guidelines for arson packaging and preservation. The labs encourage the use of new paint cans.

STATEWIDE FIRE/ARSON DATA SYSTEMS

Fire Incident Data System:

ACAP Contribution		
Total	Partial	None
	X	

Illinois' data system is fragmented: (1) approximately two-thirds of the state's 1300 fire departments report to OSFM on NFIRS forms (expect all to be on line by 1982); (2) DLE's and Chicago's UCR reports, and (3) the Metro Chicago Loss Bureau (MCLR), an insurance system covering 5 Illinois counties; (4) PILR reports.

Objectives: ACAP funded an executive, a crime studies analyst, and a stenographer to (1) meet with all municipal, county, and state agencies, and (2) to recommend data revisions.

Report Form: A variety of reporting formats are used, including NFIRS, PILR, UCR, insurance company forms.

Compliance/Completeness: Insurance companies must report claims over \$500 and due to non-accidental fires to the SFM. Compliance is estimated at 40%, but is expected to rise due to an immunity bill passed 9/80 and industry participation on the Governor's Board. A 1979 study of 13 agencies, found less than 50% of arsons recorded on NFIRS appeared on UCR reports.

Access: Local agencies have access to NFIRS reports of other jurisdictions on request. State and local agencies have access to MCLB reports. An innovation recently passed in Illinois is to give investigative agencies access to PILR "hit" reports through OSFM. These are the record linkage reports from PILR data base.

Revisions: Mr. Mercurio is working on revisions for the state data system, which he feels will necessitate a multi-faceted approach to collect data from the OSFM, the DLE, the insurance industry, and local agencies. The Governor's Board Information System Committee is also making a proposal.

Arson Intelligence/Investigation System: DCI may develop such a system when they hire another analyst.

STATE ARSON PROSECUTION CAPABILITIES

ACAP Contribution		
Total	Partial	None
	X	

Special Arson Prosecutor: None at the state level. The presence of a special arson prosecutor varies from county to county, for the most part there is not one. Cook County does have specialized arson prosecution.

Location: County.

Staff: Usually no special arson staff.

Stage of Involvement in Cases: The usual procedure is for the investigators to work up a case, then hand it over to the State's Attorney for prosecution. The Chicago Police Dept. investigators do coordinate cases with the prosecutor.

Criteria for State-Local Prosecution: Each of the 102 counties in Illinois has a state's attorney who prosecutes criminal cases. The Attorney General's Office only has common law authority to criminally prosecute, and so only becomes involved in criminal prosecutions on the request of a local state's attorney. Therefore, members of a multiple jurisdiction ring would most likely be tried in the county where he was caught or where charges could be brought.

STATE ARSON PROSECUTION CAPABILITIES (continued)

No. of Arson Cases Prosecuted by the State 1978/1979/1980: Probably none.

LEGISLATIVE/REGULATORY FEATURES CURRENT AND PROPOSED

Arson Statute: ILL. REV. STAT. Ch. 38 makes arson and possession of arsonist materials class 2 felonies. P.A. 80-807 defines aggravated arson, and attaches class X felony sanctions.

Immunity Law: Amended 9/80: features include pre-fire reporting (companies may notify authorities of potential losses) and reciprocal (companies may obtain information from agencies as well as the reverse).

Disclosure: P.A. 80-488 effective 9/6/77, requires insurers to release information and cooperate with law enforcement regarding losses due to fire or arson, on request of SFM or law enforcement investigators. However, Illinois is first state to pass privacy protection for insurance consumers.

Reporting: ILL. REV. STAT. Ch. 127-1/2 §6. All local fire depts. must report fires to OSFM. Insurance companies must report other than accidental fires to OSFM.

FAIR Plan: Provision revised in 1978 to deter redlining and make insurance coverage more available through e.g. premium installment payment plans. Three turndowns by voluntary markets required before property eligible for FAIR plan average.

Public Adjusters: No statute.

Underwriting/Application/Inspection: 1980 law: anti-arson application to be used on buildings with more than four units. Requires disclosure of trusts and other ownership information and reporting of changes in interest during term of policy; loss history, occupancy, tax liens, and code violations.

Other Insurance Regulation: P.A. 80-904, effective 1/1/78, states insurers cannot pay claims until owner proves all taxes and demolition expenses have been paid; and if not, insurer can withhold the claim or deduct the amount; cancellation notice ten days on buildings of over four units.

Municipal Liens: Law requires insurance company to receive certificate from municipality regarding payment of taxes and expenses on property before paying claim.

Legal Procedures: A bill granting peace officer status to trained fire investigators including subpoena and hearing powers, failed to pass in the 1980 session of the state legislature.

OTHER ACTIVITIES

Public Awareness

ACAP Contribution		
Total	Partial	None
X		

Prior to ACAP, Illinois had made no public education efforts. The grant funds are being used to initiate an extensive public awareness campaign in four high-risk areas (two additional proposed areas were cut due to inadequate available statistics for evaluation). The scope of the campaign was limited in order to evaluate its impact. A grant-funded Public Information Officer handles press releases, drafts T.V. and radio spots, prepares short talks and speeches for agency officials, edits arson publications, maintains an arson resource file, contacts local and civic groups, and compiles literature. Grant funds provided a consultant for site selection, as well as office equipment and a computer. Other grant-funded activities include T.V. and radio spots, posters, billboards, slide shows, and video equipment. Brochures, posters, slides and so forth will be provided to local agencies. In addition, a juvenile education program is being developed, targeting eighth grade students.

Housing: There is no state housing code, this is handled on the municipal level.

State: Delaware
Population: 582,000 (1970)
Land Area: 2,400 sq. miles
Grant Recipient: Delaware Criminal Justice Planning Commission, 320 French Street, Wilmington, Delaware, 19801
Budget: \$534,969
Duration: 4/80 - 10/81
Contact: Mr. J. Benjamin Roy, Jr., State Fire Marshal
Telephone No.: (302) 736-4393

LEADERSHIP	ACAP Contribution		
	Total	Partial	None
<u>Role of Governor/Other Top State Officials:</u>			X
The Governor has given his total support to the grant and all state arson control initiatives. The State Arson Advisory Committee includes representatives from all 12 primary agencies involved in arson control and the Attorney General's office. Meetings are held to review problems, coordinate efforts, and develop operating policies and administrative procedures. Organized a few months prior to the grant start up, this Committee has succeeded in enhancing cooperation and coordination between agencies.			

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE AUTHORITY
Local Requirement to Report Fires to the State
Who Must Report: Because there is only one paid fire department in Delaware there is no statutory requirement to report; however, all fire departments submit fire incidence reports to the State Fire Marshal (SFM). These reports cover 95% of Delaware fires, the other 5% are reported to the Delaware Bureau of Investigation by police on routine investigations.
What Must be Reported: The departments use NFIRS.
Time Limit: No limit, but submission is timely and delays are limited to two or three weeks.
Statute Citation: None
State Authority to Investigate Fires
Fire Categories that Must be Investigated: The SFM is to investigate all fires, but due to resource limitations the office has developed guidelines for investigation. All of the following fires are investigated: fatality; high dollar loss; suspicious origin as determined at the discretion of the ranking fire suppression officer at the scene.
Fire Categories that May be Investigated: The SFM and his deputies (the investigators) are to enforce all laws on arson suppression, and assist any local chief of the fire department upon request.

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE AUTHORITY (continued)

Who investigates: The SFM and the deputies he appoints.

Statute Citation: DEL. CODE tit. 16 §6607.

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT	ACAP Contribution		
	Total	Partial	None
General Investigation		X	

Special Arson Unit: The State Fire Marshal is vested with primary investigative responsibility throughout the state for fire and arson, with three exceptions: (1) Wilmington, where the local Fire Marshal investigates; (2) Newark, where the local police department investigates; and (3) Dover, where once the SFM determines a criminal cause the case is turned over to the local police department. In all other jurisdictions the SFM will conduct the entire investigation. Where another crime is present or intense investigation is required, the state, county, or municipal police become involved. These situations include: (1) deaths; (2) injuries which may result in death; (3) fires set to cover other crimes; (4) fires involving suspects in organized crime; (5) labor related fire incidents; or (6) fire incidents that in general reflect an attempt on life or are assaultive in nature.

Location: Pursuant to Delaware's cabinet government, the Governor appoints a State Fire Commission which supervises the SFM's office, as well as the Department of Fire Service Training.

Staffing: The ACAP grant added three arson investigators (two former police detectives and one retired Wilmington firefighter) to the SFM's investigative force. At present the SFM has fifteen deputies (investigators), one administrative officer, one accountant (working exclusively on grant finances), and one clerk. They are hoping to use both ACAP and a NFIRS grant funds to hire a full time data manager. ACAP grant funds were also used to purchase the following: office equipment; investigative and evidence preservation equipment, photographic, audiovisual, and radio equipment. In addition, ACAP funded an arson investigator, office and radio equipment for the City of Wilmington's Fire Marshal (a subdivision of the fire department). This has served to increase the city's investigative capabilities which are composed of the Fire Marshal's office and a platoon of investigators from the departments' 5 or 6 fire companies.

Deployment: While the SFM covers all unincorporated areas and any jurisdiction without its own fire marshal, 8 of his 15 deputies are in New Castle county and the rest divided between Kent and Sussex counties. This is because New Castle is the only metropolitan county in Delaware, the other two being primarily agricultural. They are also regularly requested to assist in Wilmington, Newark, and Dover investigations.

Who Uses: More investigations occur in New Castle. Because of its urban nature there has been a rise in the general crime rate, including arsons.

How Frequently: On a regular basis.

Coordination with Locals: Inter-agency coordination is extremely high in Delaware. the SFM's office often uses State Police resources. Local police assistance is

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT (continued)

available from, for example, criminal investigation units, and youth aid (a police division which works with juveniles and has programs for them).

No. of Investigations:
From 4/1/80 to 12/1/80:
761 investigations
53% criminal: 42% accidental
Clearance rate 53%
Criminal clearance rate 21%: arrest and exceptional (e.g., 8 year old handled by Juvenile Court and released to his/her parents).

Special Investigation: While there are no special arson resources per se in this area, they can seek assistance from either the state's Attorney General's White Collar Crime Unit or Economic Crime Unit.

TRAINING	ACAP Contribution		
	Total	Partial	None
State Training Program:	X		
Delaware has used the ACAP funds to assemble national experts on arson to conduct their arson training program. The consensus is that they have formulated 3 excellent training programs:			

(1) An 80-hour course on Advanced Arson Investigation for police criminal investigators, fire marshals, and the special prosecutor. The SFM's office developed the training and employed national experts; training was held at the Delaware State Police Training Academy. The training was broken into one five-day block followed by five single day sessions. The block training was attended by about 29 students, two additional days have been delivered with attendance at 31 and 35. The last three days are demonstrations. The course was offered two more times during the grant; altogether approximately 100 people were trained.

(2) The SFM delivered in-service training to about 13 state people and 7 local. This training included a half day on photography (investigative techniques), and a one-day presentation by the ATF laboratory on evidence preservation.

(3) Finally, 4 hours of arson awareness training was developed for line policemen. This training was first delivered in May 1980 to the Delaware Police Chiefs Council (state, county, and municipal agencies) to gain their support so they would send their patrolmen. The training is delivered through the in-service training required annually. Beginning with the State Police training in October, the course was given at each in-service session so all State Police have now received this training. The New Castle County and Wilmington Departments also have this in-service training for all staff and the arson training will be included in their programs. Other municipal officers are invited to attend these three training programs, so more than just the three jurisdictions will be trained. To date, the State Police Arson training was attended by 415 police officers.

(4) In addition, the SFM's deputies, primarily the three new investigators, have attended out-of-state programs:

--5/2/80 Seven people to Philadelphia for a National Fire Protection course on electrical fires.

TRAINING (continued)

State Training Program, continued

--6/2-6/6/80 Four people to Rutgers Arson Investigation course.

--6/16-6/20/80 Two people to Sirchie Fingerprint Lab (private) for training on evidence collection and technical state-of-the-art aids (e.g., detection and photographic equipment).

TECHNICAL ASSISTANCE

State Laboratory Facility

Number and Location of Arson Labs: While they can use the State Police Medical Examiner's Office or the FBI, they primarily rely on the ATF lab in Rockville, Maryland (50 miles away).

Equipment: State-of-the-art technology.

Staff: Expert.

Priority of Arson: Good.

Turn Around Time: 1 week to 10 days.

Evidence Standards and Procedures: They have trained on this topic in their office.

STATEWIDE FIRE/ARSON DATA SYSTEMS

Fire Incidence Data System:

Insurance companies report to State Fire Commission. Local fire agencies use NFIRS. After investigation, if a fire is found to be accidental, the additional information is appended to the NFIRS; if the fire is criminal the information goes on the Delaware Crime Report to be computerized by the Delaware Bureau of Investigation.

Objectives: They hope to enhance their system by merging NFIRS and the criminal justice records.

When Started: NFIRS was adopted about three years ago.

Report Forms: NFIRS and Delaware Crime Report.

Compliance/Completeness: Very high.

Access: While only a few agencies can input information into the Delaware Bureau of Investigation's computer, access (including case histories) is available to the courts, the Attorney General's Office, and the SFM's office.

STATE ARSON PROSECUTION CAPABILITIES

Special Arson Prosecutor:

ACAP funds were used to hire a deputy attorney general for full time arson prosecution. The special prosecutor screens every state arson case and as he is located in New Castle, he has the discretion to refer an arson case from the two southern counties to a deputy prosecutor there. (The Delaware Department of Justice has an office in each of the three counties.) The arson prosecutor will review each case himself.

Location: Delaware Department of Justice, Attorney General's Office.

Staff: Special arson prosecutor.

Stage of Involvement in Cases: Arson investigators can call for advice at any stage in the investigation, the special prosecutor often comes over to the SFM's office to meet with them. He frequently is familiar with cases before the arrest is made.

Criteria for State-Local Prosecutions: The only local prosecutions are reckless burning cases in Wilmington's Municipal Court (jurisdiction limited to misdemeanors).

No. of Arson Cases prosecuted by the State 1978/1979/1980:

Two courts handle arson prosecutions: (1) the Superior Court for adults, and (2) the Family Court for juveniles.

	Year	Total Felony Pros.	(felony) Total Arson Pros.	Arson as % total pros.
Only Superior Ct.	1978	2,159	6	.27%
Both Cts.	1979	3,881	30	.77%
Both Cts.	1980	3,621	61	1.7%

TECHNICAL ASSISTANCE TO LOCALS

Nature of Assistance:

The SFM has a State Arson Van and two evidence technicians to run it. The van is a fully equipped crime scene van deployed for fatal or severe fires. The van is centrally located and available to locals on a need basis. For example, van was recently used at a disastrous chemical plant explosion and a number of agencies worked out of the van including ATF and OSHA.

LEGISLATIVE/REGULATORY FEATURES CURRENT AND PROPOSED

Arson Statute:

DEL. CODE tit. 11 §801 Arson 3d degree, class E felony
§802 Arson 2d degree, class C felony
§803 Arson 1st degree, class B felony
§804 Reckless burning or exploding, class A misdemeanor
§811 Criminal Mischief, (varies).

Immunity Law:

DEL. CODE tit. 16 §§6803-6807. Federal, State, and local agencies (fire, police, and prosecuting) may require an insurer to release all relevant information, and when an insurer has reason to believe a fire to be other than accidental and in excess of \$5,000 for the purpose of notification and investigation, insurer to notify "an authorized agency." Insurer providing the information can request the same.

LEGISLATIVE/REGULATORY FEATURES CURRENT AND PROPOSED (continued)

Disclosure: DEL CODE tit. 16, subsection 6620(a). Insurer within 30 days after adjustment of loss to report to State Fire Commission, on furnished forms, information on the amount of the insurance, value of the property insured, and amount adjusted. (b) Owner or insurer of property may request written results of the Commission's examination if the Commissioner has prior approval from the Attorney General.

Municipal Liens: Legislation pending. H.B. 88 (2/4/81).

Legal Procedures: SFM may issue subpoenas (DEL CODE tit. 16, § 6607).

OTHER ACTIVITIES

Public Awareness:

Using the grant funds for expenses only, the Delaware Chapter of the International Association of Arson Investigators (IAAI) volunteered to run a public awareness campaign. Included are a toll-free hotline, billboards to advertise the hotline and promote arson awareness, a speakers bureau for community groups, and busboards for New Castle's public transportation system. In addition, IAAI will sponsor a judiciary seminar/discussion on the criminal and civil aspects of arson cases. Under discussion is an arson reward system, while a tentative go-ahead has been given by LEAA to use grant funds for a reward program, they want to explore other sources of funding to ensure sufficient monies are available (e.g., State Police tipsters pool, insurance money, etc.). The SFM's Office maintains excellent relations with the state's newspapers and they get good coverage of grant activities and arson cases.

Community Involvement: The New Castle and State Police agencies are active in this area, organizing special citizen patrols and so forth. These efforts are directed at felony crimes and so they cover arson, although no particular emphasis is given to arson.

Housing: Delaware has a State Housing Code modeled after the National Fire Prevention Code. The SFM's office is divided into two segments (1) investigation; and, (2) code enforcement. For instance, the SFM reviews all new construction in Delaware.

State: Florida
Population: 8,717,334 (1977)
Land Area: 58,560 sq. miles
Grant Recipient: Dept. of Insurance/State Fire Marshal, 447 Larson Bldg., Tallahassee, Florida 32301
Budget: \$458,824
Duration: 2/80-7/81
Contact: Mr. Don Steverson
Telephone No.: (904) 488-9825

LEADERSHIP

Role of Governor/Other Top State Officials:

The State Fire Marshal (SFM) has been extremely active in the arson area. Pursuant to the grant, Florida has organized the Florida Arson Council, a statewide task force, representing the insurance industry, law enforcement agencies and associations, fire departments and associations, prosecutors, and various other agencies and organizations. (See membership list). The Council held 3 regional hearings over the duration of the grant (Miami, Orlando, Tallahassee) to hear testimony and make recommendations to the Commissioner and the legislature on arson. In addition, members will encourage their respective groups' participation in or development of programs. Florida's insurance firms have established the Florida Advisory Committee on Arson Prevention (1973) to conduct arson control activities.

LOCAL REPORTING REQUIREMENTS AND STATE

INVESTIGATIVE AUTHORITY

Local Requirement to Report Fires to State:

Who Must Report: Theoretically the SFM could demand fire incidence reports from fire departments, but the applicable statute is not enforced.

What Must be Reported: After start-up 18 months ago, 170 paid depts. of the 740 total are using a modified NFIRS. None of the (approx.) 500 volunteer departments are reporting. Their goal is to have 350 departments use it, and thereby capture 90% of fire incidents.

Time Limit: None

Statute Citation: (FLA. STAT. § 633.111)

Statutory Authority to Investigate Fires

Fire Categories that Must be Investigated: By statute the SFM is to investigate the cause, origin and circumstances of every fire where property damage occurs and there is reason to believe the fire resulted from carelessness or design.

Fire Categories that May be Investigated: SFM's authority extends to every fire.

Who Investigates: The SFM.

Statutory Citation: FLA. STAT. § 633.03.

Membership of Florida Arson Council

- (1) The Commissioner or designee (chair)
- (1) The Director of State Fire Marshal
- (1) Chairman, House Criminal Justice Committee or designee
- (1) Chairman, Senate Judicial Criminal Committee or designee
- (1) Sheriff
- (1) Representative of Florida Sheriff's Association
- (1) State Attorney
- (1) Representative of Florida State Attorneys Association
- (1) Police Chief
- (1) Representative of Florida Police Chiefs Association
- (1) Fire Chief
- (1) Representative of Florida Fire Chiefs Association
- (1) Representative of Florida Peace Officers Association
- (1) Representative of Florida Police Benevolent Association
- (1) Representative of Florida Firemans Association
- (1) Representative of Professional Fire Fighters of Florida
- (1) Insurance Industry Representative
- (1) Insurance Agent
- (1) Insurance Adjuster
- (1) Florida Advisory Committee on Arson Prevention Member
- (1) Florida Chamber of Commerce, also representing financial institutions
- (1) Florida League of Cities Representative
- (1) Florida Bureau of Investigation Representative
- (1) Alcohol, Tobacco and Firearms Representative
- (1) Television Media Representative
- (1) Radio Media Representative
- (1) Print Media Representative

27 TOTAL

ARSON INVESTIGATIVE CAPABILITIES/DEPLOYMENT

ACAP Contribution		
Total	Partial	None
	X	

General Investigation

Special Arson Unit: The SFM's Bureau of Fire Investigations maintains seven field offices, an arson lab, and an arson training program. The seven investigative offices are located in: Miami, West Palm Beach, Tampa, Orlando, Jacksonville, Tallahassee, and Fort Walton Beach. In addition, single investigators working out of their homes are stationed in Pensacola (out of Fort Walton Beach); Winter Haven (out of Orlando); and Gainesville (out of Jacksonville).

Location: State Treasurer as head of the Department of Insurance is designated as SFM. The Director of Division of SFM supervises the SFM.

Staffing: 26 investigators and 2 vacancies; 1 bureau chief; and 11 support staff.

Deployment: They get calls from all jurisdictions. For example, their Miami office is busy, despite the self-sufficient county arson unit and Miami unit (both are sophisticated and have police powers). On the other hand, just south in Monroe County (Keys area) where there are no arson resources they also get a number of calls. No area clearly predominates.

How frequently: See attached.

Coordination with Locals: They do collaborate with existing arson units, and local agencies to some degree.

No. Investigations: E.g., January 1981: 250 calls requesting assistance.

Special Investigation

Purpose: Through the grant the SFM hired an attorney to provide technical and training assistance. He will provide special investigatory aid at times. For instance, in a town plagued with arsons he worked with the local State's attorney to develop a case against a suspect. The Department of Insurance maintains a Division of Insurance Fraud which has its own investigators (no police powers) and resources. The division is busy full-time with fraud but on occasion they have cooperated with the SFM's office and information is shared on an investigator-to-investigator basis. Occasionally, the SFM has used the division's resources (e.g., accountants).

Location: Attorney is in SFM's office.

Staffing: Attorney, law clerk, secretary (all grant positions).

Coordination with Local Efforts: The attorney is available to assist prosecutors, fire and police agencies in all phases of arson cases.

REQUESTS FOR FLORIDA SFM INVESTIGATION 1980

Citizens, non-owners	16
Citizens, owners	33
City officials	2
County officials	43
Fire departments	
(county & municipal)	1,056
Insurance Firms	202
Police departments	51
Sheriffs	470
States Attorneys	2
State leased & owned buildings	5
School Board officials	2
Investigator (happened to see)	1
	1,943

TRAINING

State Training Program

ACAP Contribution		
Total	Partial	None
	X	

- (1) The Fire College has 15 minutes on arson in its minimum required training. Police training does not cover arson detection or investigation.
- (2) The SFM's Bureau of Standards and Training holds regular classes at the Fire College on detection and investigation, and also offers an annual five-day seminar (see attachment). Field investigators will deliver training to local agencies at their department.
- (3) The Florida Advisory Committee on Arson Prevention offers arson training to insurance personnel, and arson control agencies; however, their efforts tend to focus in central Florida. They hope insurance task force participation will expand these efforts.
- (4) Advanced arson training funded by the grant is being delivered to full-time arson investigators (SFM and local). The course is theoretical in nature and covers chemistry, physics, basic electricity, law, and so forth. Training began in 1981: 35 students in January; 25 in February; 32 in March; and 40 planned in the future. Each class took 40 students, but some departments could not afford to lose the manpower (local police and fire) for the three weeks.
- (5) The formalized grant training for prosecutors was abandoned for the "hands-on" approach delivered by the ACAP-funded attorney. The attorney works directly with prosecutors on their arson cases. He also has given talks, and is presently, with the Dade County prosecutor, planning a statewide seminar.

TECHNICAL ASSISTANCE

State Lab Facilities

ACAP Contribution		
Total	Partial	None
	X	

Number and Location of Arson Laboratories: The State Fire Marshal maintains an arson lab at the State Fire College. (Other Available Labs: (1) State network, poor response time; and (2) one county lab, only accepts work from within county.)

Equipment: The grant added a second gas chromatograph; and a headspace trapping system; a high resolution infrared spectrophotometer; and, stereo and brightfield microscopes.

Staff: Their staff has qualified as state and federal witnesses numerous times, and also provides technical assistance and participation in training.

Priority of Arson: 99% of their work is arson.

Turn Around Time: Routine samples: 1-2 weeks; extraordinary cases: immediate analysis. Special analysis: may take longer.

Evidence Standards and Procedures: The lab has no formal standards or procedures on acceptability of evidence samples, however, the Bureau of Fire Investigation has internal standards for their investigators (contained in Prosecutor's Manual).

STATEWIDE FIRE/ARSON DATA SYSTEMS

Fire Incident Data System:

ACAP Contribution		
Total	Partial	None
		X

(1) SFM cooperates with UCR reporting; (2) SFM and insurers have agreed PILR data will fulfill disclosure and immunity law (not yet in operation); and (3) 170 departments using NFIRS.

Objectives: They are in the process of formulating a comprehensive data system. Two years ago Department of Insurance funding for a comprehensive data system was authorized. They have just acquired an IBM 4331 and are converting all Department information to the system. The arson program will use the Department capabilities for their information system and are currently looking at software. In particular they are interested in LEAA's PROMIS system developed for court management. This would give them case tracking and diary abilities. They will also be able to cross reference which is important with Florida's mobile population. Aetna Insurance Company may fund additional hardware, terminals and communications equipment. In that case, investigation reports could be added.

Report Forms: PILR, NFIRS, Investigative reports are planned.

Compliance/Completeness: Not yet using PILR; NRIRS 170 of 740 departments; goal is 350 departments.

Access: Insurance companies report only to the SFM and no other law enforcement agency. The field investigators are subject to civil and criminal penalties for abuse of this information. By statute the reports may be verbally shared only to the extent necessary for an investigation. By FLA. STAT. § 633.111 fire incidents reports are only open to public inspection at the discretion of the SFM or by court order.

Arson Intelligence/Investigative System: Same as above, planned system is combined incident/investigative system.

STATE ARSON PROSECUTION CAPABILITIES

Special Arson Prosecutor:

The grant funded an attorney, a law clerk, and a secretary for the SFM's office. The latter two people have subsequently become involved in all phases of the anti-arson efforts. The attorney was hired to develop training for states attorneys. A "hands-on" approach has been adopted, and the attorney works with everyone. He works in the field, helps investigators with case development, assists states attorneys in trial preparation, and has aided in prosecution at trial. He is the focal point for arson prosecution and has identified prosecutors with an interest and/or expertise in arson control. The attorney gives talks to prosecutors and is planning a seminar.

Staff Location: Florida has 700 prosecutors in 20 judicial circuits, each office headed by an elected states attorney.

Stage of Involvement in Cases: Varies widely, one circuit never prosecutes without a confession or eye-witness, other will work at the fire scene with investigators.

ATTACHMENT A
Data on Training Provided by the State Fire Marshal

Annual Statewide Arson Seminar

	1975	1976	1977	1978	TOTAL
Total in Attendance	349	326	379	324	1,378
Law Enforcement	69	70	71	39	249
Fire	212	200	233	219	864
Insurance	16	19	25	32	92
Other	52	37	50	34	173
Number of States Represented	3	5	17 and Canada	11 Canada	36 and Canada

The seminars included an average of 24 classroom hours and 8 hours on outdoor demonstrations such as burn patterns, incendiary devices, explosive devices and "hands-on" investigation.

Bureau of Standards and Training Fire Investigation
and Arson Detection

	1977	1978	1979	TOTAL
Number of Classes	5	8	4	17
Number of Students	119	158	102	379
Number of Classroom Hours	97	157	90	344

STATE ARSON PROSECUTION CAPABILITIES (continued)

ACAP Contribution
Total Partial None

Criteria for State v. Local Prosecution: States attorneys are charged with prosecuting all misdemeanors and felonies, from traffic violations to the most heinous felonies. The Attorney General handles all appellate work. The state's attorneys have pervasive authority to develop coordination. For instance, in an eight million dollar fire in which many agencies were involved with individual investigations, a states attorney intervened, established a task force, and supervised the operation. Their efforts resulted in an arrest and conviction.

No. of Arson Cases Prosecuted by State 1978/1979/1980: Not available (arson is merged in statistics with other crimes).

TECHNICAL ASSISTANCE TO LOCALS

ACAP Contribution
Total Partial None

Nature of Assistance:

The SFM's attorney and experienced states attorneys answer questions on investigation and provide technical guidance. The SFM's lab staff provide expert assistance to locals and will respond to the scene to assist in detection and collection of evidence for lab examination. In addition, they will give expert advice on cause and origin.

LEGISLATIVE/REGULATORY FEATURES CURRENT AND PROPOSED

Arson Statute: FLA. STAT. §§ 806.01, 806.10, 806.101-806.111, 806.13, unnumbered. Effective 6/1/79. In 1975 their statute was amended to follow the Model Penal Code. In October of 1978 the SFM appointed a Blue Ribbon Ad Hoc Committee (law enforcement, fire agencies, Supreme Court, insurance, prosecutors, private attorneys, and certain associations) to review the arson statute. Recommended changes were passed in 1979. They have had no appellate experience with the statute to date.

Immunity Law: FLA. STAT. § 633.175 effective 1/79. Statute requires reporting to the SFM on fires of suspicious nature. Reporting is made only to the SFM.

Disclosure: Again, reporting only to the SFM.

Public Adjusters: Licensed by the state and regulated by the SFM.

Underwriting/Application/Inspection: No inspection requirement.

Other Insurance Regulation: FLA. STAT. § 627.7375. Statute on false or fraudulent insurance claims.

Legal Procedures: FLA. STAT. §§ 633.01(7), 633.03, 633.05, 633.101-633.111, 633.175, 633.14, 633.18. The SFM and his agents have power to hold hearings, take testimony, sign and issue subpoenas, promulgate rules and regulations to effectuate his powers and duties, power of arrest, carry firearms, make searches and seizures, and make necessary affidavits to authorize arrest or seizure. Police powers are conferred after police training (320 hours). There are no known legal or executive orders constraining the authority of the SFM.

OTHER ACTIVITIES

ACAP Contribution
Total Partial None

Public Awareness:

The Florida Committee on Arson Prevention has a reward program of \$1,000 for information and identification (general account). Awards are determined by a subcommittee. Insurers can also post specific rewards. In addition, the committee provides a hotline and Post Office box. Posters are provided free to local agencies. The Division of Forestry maintains a \$1,000 reward for conviction which covers forests and structures. The SFM uses grant funds to emphasize local delivery of literature, PSAs, and statewide speakers. They have had some speaking engagements and plan more. PSAs have been produced on arson awareness for radio and T.V.; the announcement advertises their office telephone number. Brochures for insurance adjusters will accompany licenses during their annual renewal. This material will reach 75,000 adjusters. Local departments and associations will aid in distribution, a place is reserved for a distributor stamp. A good response has developed. E.g., the Orlando Women's Insurance Association has taken on distribution as a project.

Community Involvement: The Attorney General runs a Help Stop Crime program and has agreed to distribute arson information in an April mailing. They will use the mechanical distribution system of all local police Crime Prevention Divisions.

State: Rhode Island
Population: 927,260
Land Area: 1214 sq. miles
Grant Recipient: Department of the Attorney General, Providence, RI 02903

Budget: \$386,121
Duration: February 25, 1980 - January 8, 1982
Contact: Charles Nystedt, Esq., Special Asst. Attorney General
Telephone No.: (401) 274-4400

LEADERSHIP	ACAP Contribution		
	Total	Partial	None
Role of Governor/Other Top State Officials:			X
The Governor's Task Force on Arson was created in 1978 and submitted its report in 1980. Several members of the Task Force assisted in the development of the ACAP proposal. The Attorney General provided strong support to the effort as well.			

The Rhode Island State Fire Marshal (in the Department of Fire Safety) is in charge of state fire investigative activity.

Financial Assistance to Local Efforts: None under ACAP, except in the form of training.

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE CAPABILITIES

Local Requirement to Report Fires to State

Who Must Report: Local fire departments must report all fires to State Fire Marshal.

What Must be Reported: Statute requires report of "all facts relating to...cause and origin...that can be ascertained," extent of damage and amount of insurance coverage.

To Whom: State Fire Marshal

Time Limit: Reports to be made to State Fire Marshal within the first ten days of the month following the month in which the fire occurred. Reports on suspicious, incendiary and fatal fires according to procedures established by State Fire Marshal.

Statute Citation: R.I. General Laws 23-28.2-10-11.

State Authority to Investigate Fires

Fire Categories that Must be Investigated: All fires of suspicious origin which caused property damage or fatality.

CONTINUED

5 OF 6

LOCAL REPORTING REQUIREMENTS AND STATE INVESTIGATIVE CAPABILITIES (continued)

Fire Categories that May be Investigated: "any fire."

Who Investigates: The State Fire Marshal's office handles all state-level arson investigation.

Police Powers of Fire Investigators: State Fire Marshal investigators must complete the State Police Academy and thus have full police powers.

Statute Citation: R.I. General Laws 23-28.2-11.

STATE ARSON INVESTIGATION CAPABILITIES/DEPLOYMENT	ACAP Contribution		
	Total	Partial	None
General Investigation		X	

Special Arson Unit: Theoretically the State Fire Marshal's investigators carry out cause-and-origin determination and follow-up investigations. However, due to manpower shortages, most preliminary investigations are done by local officials and SFM investigators may be brought in on request of local authorities. An objective of the ACAP project was to encourage local authorities to make more use of SFM investigators.

Staffing, Location and Deployment: Nine SFM investigators (two hired with ACAP funding) cover the state from a central office in Providence. The two ACAP-funded investigators work very closely with the Attorney General's arson strike force.

Who Uses: Local fire and police departments and the Attorney General's office.

Coordination with Locals: Under the ACAP project some barriers to cooperation were overcome. Liaisons were established in each locality, and efforts were made to increase local utilization of SFM investigative staff.

Special Investigation: Two accountants have been hired by the Attorney General's office under the ACAP grant. They have been working on complex cases involving several large Providence property owners suspected of arson. This involves detailed research in property transactions and insurance matters. They have also worked on cases requiring analysis of bank records and other financial documents.

TRAINING

ACAP Contribution	Total	Partial	None

State Training Programs:

Prior to ACAP, there was no state-level training in arson investigative subjects in Rhode Island. Indeed, many local investigators had not received any training for their jobs. Under ACAP, training was offered in arson detection, investigation and prosecution.

Courses Offered: Regional courses were offered in arson detection and a series of day-long seminars on arson investigative subjects was held. These dealt with such topics as fire scene examination procedures and legal issues involved; evidence selection, preparation, and preservation. A mock arson trial was held for prosecutors and investigators.

Training Materials: The Rhode Island Attorney General's office prepared excellent training materials including a charging guide providing detailed information on the state's new arson statute, a checklist of steps in case processing, a summary and analysis of the constitutional issues involved in fire scene examination, and a manual of evidence collection and handling procedures. All of these materials will be brought together in an arson prosecutor's "desk book."

TECHNICAL ASSISTANCE

ACAP Contribution	Total	Partial	None

State Lab Facilities

Number and Location of Arson Laboratories: The State Crime Lab at the University of Rhode Island handles analysis of arson evidence for the whole state.

Equipment: ACAP funds were used to purchase a new gas chromatograph and infrared spectrophotometer. Primary analytical technique is leadspace analysis.

Staff: ACAP funds were used to hire a trained chemist to perform arson analysis at the State Crime Lab.

Priority of Arson: With the addition of the new chemist, high priority can be given to arson work.

Turn Around Time: Turnaround time has improved significantly since the addition of the chemist.

Evidence Standards and Procedures: The ACAP training program included instruction and development of informational materials on these subjects.

STATEWIDE FIRE/ARSON DATA SYSTEMS

ACAP Contribution
Total Partial None

X

Fire Incident Data System: NFIRS is operational in Rhode Island except for the City of Providence which has now agreed in principle to join the system. The State Fire Marshal is in charge of the NFIRS system.

Compliance/Completeness: Except for Providence, the cities and towns of Rhode Island have been submitting accurate, complete and timely reports.

STATE ARSON PROSECUTION CAPABILITIES

ACAP Contribution
Total Partial None

X

Special Arson Prosecutor: Grant funds support a special assistant Attorney General who heads the Arson Strike Force and is ACAP Project Director. This attorney screens all arson cases and prosecutes many himself--especially the complex and difficult cases. The rest are assigned out to Information Charging Units--the general crimes prosecutors.

Location: Attorney General's Office.

Staff: One Attorney, one paralegal, two accountants.

Stage of Involvement in Cases: The attorney in charge of the Strike Force has made concerted efforts to establish close contact with state and local investigators and to get involved in the early stages of investigations. He has participated in surveillance of suspected high-risk buildings and attended numerous fire scenes.

Criteria for State-Local Prosecution: No local prosecutors in Rhode Island; Attorney General's office handles all criminal prosecution and civil litigation statewide.

LEGISLATIVE/REGULATORY FEATURES CURRENT AND PROPOSED

Arson Statute: R.I. General Laws, Section 11-4. Includes the original common law definition of arson and a redefinition of arson in seven degrees. Life sentences may be imposed for first degree arson. Mandatory minimum of 20 years for fatal fires. Includes broad language relative to causing and procuring another to commit the crime.

Immunity Law: Recent amendment requires insurance companies to report "other than accidental" fires to the State Fire Marshal and the local fire chief.

Licensing and Regulation of Public Adjustors: Legislation has been drafted by the Attorney General's office and will be submitted in late 1981 or early 1982.

Municipal Liens for municipal tax arrearages and demolition costs. Legislation is being drafted by the Attorney General's office and will be submitted in late 1981 or early 1982.

APPENDIX B

Preliminary Site Visit Instruments

Task Force

- When organized?
 - Before ACAP?
 - Under ACAP?
- Reason for formation?
i.e. any specific triggering episode/condition?
- Membership?
 - consistent representative from each agency
- Sponsoring agency/location of TF?
- Chairperson/lead agency?
- Frequency of meetings?
- Level of attendance/participation?
- Organization?
 - e.g. subcommittees with specific areas of responsibility?
- Specific objectives of task force?
e.g.
 - resource allocations: staff, equipment
 - funding
 - planning action strategies: establish/improvement of arson squad, public awareness campaigns, data systems
- Other policies developed?
- Written record of policies, agreements, recommendations?

- Nature of interagency cooperation generally - pre/post Task Force?
- Nature of on-the-street cooperation/coordination among fire, police, prosecutor, insurance companies, etc. - pre/post Task Force?

Arson-related statistics

- Types of data systems in place/in development?
 - fire incident statistics system
 - local investigative information system
 - arson early warning system (see next set of questions)
 - other/combination
- Who developed system?
- Who is in charge of system?
- Fire incident statistics system - national systems?
 - USFA's NFIRS?
 - NFPA's UFIRS?
 - American Insurance Association's PILR (Property Insurance Loss Register)
 - standard data items: time, location, type structure, type fire?
 - additional data items?
 - statistics generated?
 - objectives/uses of system: archival, investigative, predictive?
- Local Investigative Information System?
 - build on national Fire Incident system - e.g., use NFIRS Form/902 Incident Report?
 - financial status, market value, insurance coverage, code violations,
 - Individual data: owners, beneficiaries, suspects, witnesses, MO's
 - manual/automated
 - master name file
 - objectives/uses of system
- General data systems issues, procedural issues
 - training of implementers, operators
 - screening/quality control
 - coding

- consistent definitions/categories - e.g. arson, incendiary, suspicious
- other procedures

- How is information from outside fire service obtained?
 - difficulties encountered
- Is system used to monitor/evaluate arson program?
 - measures
- Is system used for planning?
 - budget
 - staff
 - strategies
- Placement of system/terminals, etc.?
 - perceived effect on usefulness of system?
- Who has access to system?
 - perceived effect on usefulness of system?

Early Warning Systems

- Build on National Fire incident systems/local investigative information system?
- Specific objective?
 - identify high risk types of buildings/geographical areas/specific buildings?
- Strategy/analytical approach
 - historical data on fires: locations, types, patterns?
 - use of Arson Pattern Recognition (APR) system?
 - building information: code violations, assessed valuation, tax arrearages, property transactions, insurance coverage, changes in insurance coverage, vacancies, previous fires in building
 - use of "trigger variables"
- Organization of data file:
 - by geographical area (e.g. census tract) and by individual building within each area?
- Action taken when building is designated high-risk by system?
 - patrol/surveillance
 - pressure/help owner to repair/rehabilitate
 - insurance company warns owner that any fire/request for increased coverage will be carefully investigated
 - seal/demolish vacant buildings
- Use of system for investigative purposes once fire occurs?

Media Campaigns

- Planning
 - who planned the campaign?
 - what was the role of the Arson Task Force in planning the campaign?
 - is there a particular target audience/subpopulation?
 - if so, how has this choice affected choice of delivery media for campaign?
 - has a PR firm/specialist been involved in planning the campaign?
 - what provisions have been made for media relation?
 - has a single source been designated for information releases?
- Management
 - what is the locus of control for the campaign?
 - e.g. arson unit with designated PR officer? PR unit in fire chief's office? Office of fire prevention?
 - is there an individual designated to be in charge of campaign?
 - what training/experience does that person have in PR?
- Strategies/Results
 - does the campaign have a central theme/slogan/symbol?
 - e.g. Seattle: if you set a fire, you are likely to be caught and go to jail
 - Dallas: "Burn an arsonist for cold cash"
 - does the campaign employ any gimmicks, contests, etc. to capture public attention? e.g., Seattle: Name the "arson rat" contest
- General publicity
 - what strategies used to a) call attention to arson problem?
 - b) involve public in fighting arson?
 - press conferences - task force, beginning of campaign?
 - coverage of particular arson fires - solicitation of information?
 - TV/radio spots
 - e.g., Seattle: hometown professional athletes appeal to kids not to start fires

- Other strategies

- e.g. arson awareness week

- Evaluation

- is there any evaluation of the impact of the media campaign built into the program?
- what measures used?
- data collection?

Mobilization of Community Groups

- Relations between ACAP and community groups?

- what community/service/neighborhood groups are represented on task force?
- what opportunity is provided for such groups to take action against arson?

- Actual involvement of community groups?

e.g.

- tenant groups? intelligence concerning fire hazards, suspicious landlord behavior?
- community assistance newsletters - solicit information on particular fires?
- vehicle for neighborhood development?

Hot lines

- Name of program?
- Is it headed by a management committee?
- How active is that committee?
- Funded under ACAP: Yes No
- If yes, budget allocation:
- Date of implementation?

- Publicity?

<u>Type</u>	<u>When Initiated</u>	<u>Duration</u>	<u>Amount</u>
Billboard			
Poster at fire scenes/flyer			
Radio			
TV		(e.g. 3 months)	(total of 3 hours)
Newspaper (witness anonymous columns)			

- Hours of operation?
- Method of answering operators? answering machines?
- Calls received: Total overall - Distribution
e.g. 6 first month, 3 second month, etc.
- Number of proportion of useful calls vs. junk calls

- When is information received via the hot line relative to the time of the fire, and what kind of information?

Number of calls Type of information

Prior to fire: (e.g. warning of fire, identification of suspect, observations at time of

At time of fire: car such as description of automobile, information on motive)

Immediately following fire: (several days)

First weeks following fire: (after first few days)

More than a few weeks later:

- To whom (position and title) does the information go?
- Number of instances, determined so far, where hot line tip has provided critical piece of information?
- Are callers kept anonymous?
- Use of code name/number? PO Box?

Reward Programs

- Level of funding?
- Money actually available for rewards
- Outside donor of funds, if any?
- Is reward program conducted in conjunction with Hot-line?
- If not, how are tips received?
- How much paid in rewards so far?
 - for how many different tips?
- Criteria for rewards?
- When paid?
 - e.g. upon arrest/conviction/at end of some specified period, all tips evaluated?

School Education Programs

- Extent of juvenile arson problem in jurisdiction?
- Who conducts program?
- Grades/age groups involved?
- Frequency of presentations?
- Location of presentation?
 - school, firehouse, fire scene, other?
- Coverage of schools?
 - e.g., all in city, particular neighborhoods, etc.
- Format/Type of presentation?
 - use of audio-visual materials
- Theme of presentation?
- Specific objectives?
 - consciousness of fire safety
 - awareness of arson problem
 - awareness of penalties for arson
 - other
- Perceived impact of Program on arson problem?

Neighborhood Patrols

- Group/organization involved?
- Size of area(s) covered?
- Surveillance of particular buildings?
- Hours of coverage?
- Methods of patrol?
 - number of cars
 - teams/individuals
 - equipment and radios, etc.
- Arrests produced?
- Perceived impact on arson problem?

Training of Key Actors

Answer the following questions with regard to firefighters, fire investigators, police officers, police detectives, prosecutors, judges:

- Has special training been provided?
- If so
 - number/% of staff category involved
 - hours of training
 - topics covered
 - sponsors
 - qualifications of instructors
 - ACAP-funded?
 - cross-training
- What have been the specific results of this training -- in terms of performance of duty in arson cases?

Lab equipment

- Describe what equipment has been, is to be purchased with ACAP funds:

<u>Equipment</u>	<u>Date equipment received</u>	<u>Date to be purchased</u>
------------------	--------------------------------	-----------------------------

- Is this equipment used in a permanent (fixed) laboratory, or is it to be taken to fire scenes?
- If the latter, does it stay in a van (equipped as a mobile lab) or is it carried into the building to be used?

- What training have you or co-workers received in its use?

# People	# Locus of training	Type of instruction	Instructors
		e.g. classroom vs. hands-on	manufacturer's rep., other fire investigator in dept., fire investigator from other dept. or state

- How often has this piece of equipment been used?
(If more than one, answer for each)
- Has evidence stemming from use of this equipment been used in court?
- If yes, how many times?
- Have you (or co-worker) had training in how to present testimony in court?
- What kind of contact do you have with the prosecutor on a case? Does he provide you with directions/guidelines on evidentiary requirements? (Get description of type of prosecutor contact, frequency, and contact)

Specialized police unit

- What are the functions of the specialized police unit?
- Have the officers assigned to it received special training in arson?
- What hours does the unit work? (are there enough officers assigned to cover all shifts?)
- For investigative units:
 - at what point is the unit called in?
 - who decides to call it in?
 - who assigns cases within the unit?
 - to whom are the results of the investigation reported?
 - how is responsibility for the investigation divided between the unit and the fire department on the one hand, and the prosecutor's office on the other?
 - has this structure and procedure been used for some time or has it been implemented under the ACAP grant?
 - what specifically has changed under the ACAP grant?
for patrol units:*
 - what areas are patrolled?
 - what is the schedule of patrols? Are all shifts covered?
 - is the route scheduled and regular or variable and irregular?
 - what particular activities are engaged in on patrol? (e.g., observation of high risk targets, public relations in neighborhood, requests for information from local residents)
 - are there specific goals of the patrol (such as deterring juvenile arson or minimizing response time of fire and police units?)
 - did patrols exist prior to the ACAP grant? If so, how have they changed?
- * In some jurisdictions these patrols may be conducted by the fire department.

Police/fire teams

- Who is in charge of the team?
 - Who does tht person report to?
 - At what point is the team called in?
 - Who makes the decision to call in the team?
 - Is the team assigned full time to arson cases?
 - What percentage of arson cases go to the team(s)?
 - Do team members share responsibilities, or are responsibilities clearly divided between police and fire members?
 - What outside assistance is utilized (e.g., state fire marshall, AT&F)?
 - Who is responsible for gathering and organizing intelligence?
 - Where does that information go? Is there an office or individual with overall responsibility for arson intelligence?
 - At what point does the team make contact with the prosecutor's office?
 - Who initiates the contact?
 - How much of this structure and procedure is the same as before the ACAP project began and how much has been implemented as a result of the project?
- Explain in detail:

Police/fire/prosecutor teams

- Who is responsible for directing the activities of the police/fire/prosecutor teams?
- What are the different responsibilities of the various members of the team?
- Are other investigators outside of the team also involved in cases assigned to the team? If so, how are their efforts coordinated with those of the team?
- At what point does the team become actively involved in a case?
- Are all arson cases assigned to the team? If not, how are the cases screened or selected, and who becomes responsible for those not assigned to the team?
- Who is responsible for coordinating general intelligence gathering (i.e., cross cases) about arson?
- What aspects of these procedures and structures were in place prior to the ACAP grant, and which have changed as a result of practices initiated under the grant?

Decentralized deployment of investigative personnel

- What is the specific purpose of decentralized deployment in your jurisdiction? (e.g., more rapid response, better relations with community)?
- How many different districts do you have covered? Do you have round-the-clock coverage?
- What was your response time prior to the decentralization? after?
- Who is responsible for general intelligence gathering about arson (a) within the district, (b) city-wide?
- Who or what is actually deployed from the district headquarters? (e.g., interagency investigation teams, mobile lab, detectives, fire investigators)?
- How is the decision made to send the team (equipment, etc.) out?
- Who makes the decision?
- Who does the team report the results of the investigation to (e.g., district headquarters vs. centralized arson unit)?

Specialized prosecution

- Who is responsible for the prosecution of arson cases within your office?
- Who is responsible for coordination with fire and police?
- Are there prosecutors assigned full time to arson?
- Have the attorneys handling arson cases had special training in arson prosecution?
- Who notifies the prosecutor of a possible arson case?
- At what point is the prosecutor notified?
- Who is in charge of the investigation?
- What authority does the prosecutor have to direct fire and police investigators?
- Who decides if a case will be prosecuted?
- What criteria are used to decide?
- How do you coordinate with the investigations conducted by insurance companies?
- Who is responsible to larger investigations which may seek to link fires?
- Use of civil remedies?
 - reasons for decisions
- Use of Federal statutes/federal prosecution?
 - RICO?
 - mail fraud?

Legislative initiatives

- Current status of legislation

- model legislation - 1948: National Board of Fire Underwriters; 1960: American Law Institute: New model law?
- applicability to arson for profit?
- persistence of common law terms?
- degrees of seriousness - e.g., 1st degree: burning dwelling?
- potential sentences?
- aggravated arson? - life threatening
- attempted arson?
- aiding, counselling, procuring?
- explosions, bombing?
- failure to control/report dangerous fires?

- Perceptions of Adequacy/Inadequacy of Current Legislation Regulations

- coverage, scope? (see list above)
- sentences?
- e.g., too light, too severe to obtain convictions?
- regulations, insurance, public adjusters, etc.?

- Effect of certain types of legislation, if applicable?

- laws/lawful practices which may encourage arson:

Valued Policy Laws - full cash value must be paid if property is a total loss - even if over-insured (i.e., above market value)

Unfair Trade Practices Acts - punitive damages if claims not settled within limited time: may not give enough time to investigate. Loss amendment: exempt cases where arson is suspected.

Property Ownership Arrangements - which may make it impossible/difficult to determine real owner of property

Fair Access to Insurance Requirements (FAIR Plans) - providing insurance in high risk areas if particular building is well-maintained. May be misinterpreted to prevent denial or insurance to high-risk properties

Laws/Practices which may help to combat arson

Permit withholding of rent for use on improvements to bring building up to code

Require payment of back taxes first from insurance proceeds: Place tax liens on properties

Model arson reporting immunity laws - exchange of information between insurance companies and authorities. Issue: impact of privacy laws

- Other legal issues

- jurisdictional difficulties - who may testify? some states: only fire marshal may testify
- status of arson investigators - peace officer status?

- Need for new laws or regulations/changes to existing legislation

- specific changes proposed?

- Involvement of Program in drafting legislation?

Lobbying

- Is the project involved in lobbying efforts?
- If so
 - for/against what legislation?
 - tactics?
 - effectiveness/perceived results?

Juvenile treatment and counselling

- What are Themes/Targets of juvenile program?
 - "little boy problems" - playing/experimenting with fire
 - "teenagers" - family/personal crisis, revenge, excitement, peer pressure.
- Organization/Planning?
 - who is in charge of Program?
 - are trained psychologists involved in planning/implementation?
- Strategies?
 - categorizing? - are strategies planned to target particular categories of firesetters (as above)?
 - intervention program? - when does it get involved? awareness of USFA publication on intervention programs? - sample interview forms, categorizing methods, other instructional materials?
 - relations with parents?
 - interview techniques?
 - counselling by firefighters at firehouse?
 - emphasis: help, not lecture
 - "ride-along" programs - demonstrate consequences
 - clean-up efforts in areas that are targets for juvenile vandalism?
 - Payment from property owners?
 - other strategies?
- Results
 - how many juveniles involved? By category and age group?
 - success rate/redivision?
 - drop-out rate in counselling program?
 - perceived adequacy of Program?

Juvenile referral system

- Does the juvenile program include a referral?
- Who handles this task?
- What range of referral services is available?
- How many juveniles referred?

<u>Period</u>	<u>Agency/Service</u>	<u># of Referrals</u>
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APPENDIX C

A Composite Investigative Information System

A COMPOSITE INVESTIGATIVE INFORMATION SYSTEM

This appendix describes a manual information system designed to serve the needs of a fire investigation unit consisting of one to ten investigators. This system is outlined in some detail in Section 5.3 of the main body of this report. Each section of this appendix discusses a different purpose served by the system. Table C.1 lists the purposes served by the system, the section of this appendix where each purpose is discussed, and the files that the system uses to achieve those purposes.

C.1 Hold the Records of the Investigation

Purpose

A Case File is needed to hold the basic records of the investigation unit such as field notes, narrative discussions of the case, reports of laboratory findings, photographs, sketches, other potential exhibits for court, and a copy of the fire incident report form. This Case File is the basic repository of information about cases, and the other elements of the information system consist of different ways of finding the records in this file and getting information out of this file.

Each separate fire to be investigated is considered a separate case and is assigned a separate file folder. Each case is assigned a unique Arson File Number in the order it is received by the unit. The Arson File Numbers are recorded prominently on the outside of each file folder, and the folders of the Case File are stored in sequence by Arson File Numbers. Files of open cases are filed separately from files of cases that have been closed.

Completion of an Investigation Form is required for each case in order to standardize the collection of certain information about cases. The Investigation Form proposed for this composite investigative information system is shown in Figure C.1. The different items of information on this form will be discussed later when the purposes they serve are discussed. Note that this investigation form is not intended to be an exhaustive list of all the information an investigator should gather during an investigation. We have intentionally excluded all technical details related to fire cause. Investigation forms containing items describing these details are available from other sources such as the Massachusetts Fire Fighting Academy or in NFPA Standard 904M.

TABLE C.1

PURPOSES SERVED BY THE COMPOSITE INVESTIGATIVE
INFORMATION SYSTEM AND THE FILES
USED TO ACHIEVE THOSE PURPOSES

Sec- tion	Purpose	FILES USED				
		Case File (C.1)	Log- Book (C.2)	Name File (C.5)	Address File (C.6)	Geo- graphic File (C.7)
C.1	Hold the records of the investigation	X				
C.2	Monitor case processing	X	X			
C.3	Index cases by date	X	X			
C.4	Produce monthly statistics	X	X			
C.5	Identify suspects by virtue of their frequent association with fires investigated	X		X		
C.6	Index cases by address	X			X	
C.7	Access and describe cases by geographic location	X				X
C.8	Produce statistics for management of the investigation unit	X				
C.9	Provide feedback on the rate of success in prosecuting offenders	X				
C.10	Provide information on the nature and extent of arson in the local jurisdiction	X				
C.11	Monitor the expenditure of the resources of the investigation unit	X				

FIGURE C.1

INVESTIGATION FORM PAGE 1: COMPLETE FOR ALL INVESTIGATIONS

1. Identification:

a) Arson File Number: _____ b) Fire Incident Number: _____ c) Exposure No. _____
d) Date of Fire: _____ e) Police Field Incident Number: _____
f) Address of Fire: _____

2. Chronology:

a) Date case received: _____
b) Date of initial completion of this form: _____
c) Date case closed: _____
d) Reason for closing case: _____

3. Description:

a) <input type="checkbox"/> Accidental <input type="checkbox"/> Incendiary <input type="checkbox"/> No determination possible	c) Geographic subdivision where fire is located: _____	d) <input type="checkbox"/> Vacant structure <input type="checkbox"/> Unoccupied structure <input type="checkbox"/> Occupied structure <input type="checkbox"/> Vehicle fire <input type="checkbox"/> Other fire
b) <input type="checkbox"/> Fire incident system data elements related to fire cause have been updated		

e) For each motive —————→ check one <input checked="" type="checkbox"/> Definitely a motive <input type="checkbox"/> Possibly a motive <input type="checkbox"/> Definitely NOT a motive	Arson for profit	Spite and revenge	Vandalism	Pyromania

4. Severity:

a) Fire service injuries: _____ Other injuries: _____ Fire service deaths: _____
Other deaths: _____ (If any, attach copy of 902G Form)
b) Estimated total dollar loss (from item 11h): \$ _____
c) Number of persons made homeless: _____ d) Number of persons made jobless: _____

5. Other:

a) Number of fires at this address in last 5 years: _____
b) Number of incendiary fires at this address in last 5 years: _____
c) Person discovering fire (add to Name File): _____
d) Person reporting fire (add to Name File): _____
e) ☐ Resources Expended Form is attached
f) ☐ Narrative Report is attached
g) Investigator responsible: _____

FIGURE C.1 (continued)

INVESTIGATION FORM PAGE 2: COMPLETE FOR ALL INVESTIGATIONS

Arson File Number: _____

6. OWNER

- a) Name: _____ f) Sex: _____
 (Add to Name File)
 b) Residence Address: _____ g) Race: _____
 c) Date of Birth: - - _____ h) Phone: _____
 d) Business Address: _____ i) Phone: _____
 e) Other means of contacting owner: _____ j) Occupation: _____

7. OCCUPANTS

- a) Name: _____ e) Sex: _____
 (Add to Name File)
 b) Other Address: _____ f) Race: _____
 c) Date of Birth: - - _____ g) Phone: _____
 d) Other means of contacting occupant: _____ h) Occupation: _____
- a) Name: _____ e) Sex: _____
 (Add to Name File)
 b) Other Address: _____ f) Race: _____
 c) Date of Birth: - - _____ g) Phone: _____
 d) Other means of contacting occupant: _____ h) Occupation: _____

8. SUSPECT

- a) Name: _____ h) Sex: _____
 (Add to Name File -- Do NOT use role of "suspect")
 b) Aliases: _____ i) Race: _____
 c) Residence Address: _____ j) Phone: _____
 d) Date of Birth: - - _____
 e) Business Address: _____ k) Phone: _____
- f) Other means of contacting suspect: _____ l) Occupation: _____
 g) Reason for suspicions: _____

9. WITNESS

- a) Name: _____ f) Sex: _____
 (Add to Name File)
 b) Residence Address: _____ g) Race: _____
 c) Date of Birth: - - _____ h) Phone: _____
 d) Business Address: _____ i) Phone: _____
 e) Other means of contacting witness: _____ j) Occupation: _____

FIGURE C.1 (continued)

INVESTIGATION FORM PAGE 3: COMPLETE FOR ALL INVESTIGATIONS

10. SUSPECTS IDENTIFIED IN THIS CASE (DO NOT ENTER A PERSON'S NAME IN THE NAME FILE WITH A ROLE OF "SUSPECT". USE HIS ACTUAL ROLE, EVEN IF THAT IS "ACQUAINTANCE OF OWNER".)

ARSON FILE NUMBER: _____

(Enter names of identified suspects, even if not arrested.)	Date of Arrest	Date Indicted or Information (or Juvenile Petition) Filed	Date of Guilty Plea	Date of Trial Verdict	CHECK ONE		Sentence
					Guilty (or Involved)	Not Guilty (or Not Involved)	
Name: _____	<input type="checkbox"/> Adult <input type="checkbox"/> Juvenile						
Charge 1: _____							
Charge 2: _____							
Charge 3: _____							
Name: _____	<input type="checkbox"/> Adult <input type="checkbox"/> Juvenile						
Charge 1: _____							
Charge 2: _____							
Charge 3: _____							
Name: _____	<input type="checkbox"/> Adult <input type="checkbox"/> Juvenile						
Charge 1: _____							
Charge 2: _____							
Charge 3: _____							
Name: _____	<input type="checkbox"/> Adult <input type="checkbox"/> Juvenile						
Charge 1: _____							
Charge 2: _____							
Charge 3: _____							

COMPLETE ONLY IF ESTIMATED DAMAGE IS MORE THAN \$10,000 (COMPLETE EACH ITEM OR WRITE "NONE")

11. FIRE INSURANCE AND LOSSES OF OWNERS AND OCCUPANTS

	Coverage 1	Coverage 2	Coverage 3
a) Loss covered (e.g. "contents")			
b) Name of Insured (add to Name File)			
c) Company providing insurance			
d) Agent selling policy (add to Name File) Phone #:			
e) Adjuster (add to Name File) Phone #:			
f) Face value of policy	\$	\$	\$
g) Estimated market value prior to fire	\$	\$	\$
h) Estimated damage caused by fire (move total to item 4b)	\$	\$	\$
i) Amount of insurance settlement	\$	\$	\$

12. MORTGAGES

a) Mortgage holder (Add to Name File)	b) Original Mortgage Amount	c) Outstanding Amount
	\$	\$
	\$	\$
	\$	\$

13. MISCELLANEOUS

	Yes (Attach Details)	No
a) Any code violations in last 5 years?		
b) Delinquent property taxes in any of last 5 years?		
c) Any recent or projected zoning changes?		
d) Any court actions involving owner or occupant in last 5 years?		
e) Has property received a property tax exemption or abatement in last 5 years?		

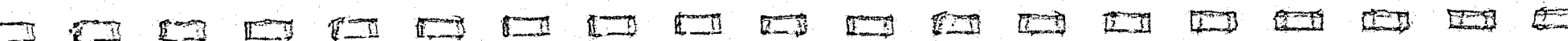


FIGURE C.1 (continued)

INVESTIGATION FORM PAGE 5 ARSON FILE NUMBER: _____

COMPLETE ONLY IF ESTIMATED DAMAGE IS MORE THAN \$10,000

14. NAMES OF OTHER PARTIES TO THE LOSS: (COMPLETE EACH ITEM OR WRITE "NONE")
(Add all names to the name file.)

a) Officers of a corporate owner: _____

b) Trustees of a trust owner: _____

c) Partners of owner: _____

d) Attorneys of owner: _____

e) Lienholders: _____

f) Salvage or repair contractors: _____

g) Persons paying utility bills on the property for last 5 years: _____

h) Persons paying tax bills on the property for last 5 years: _____

i) Prior owners of the property for last 10 years: _____

j) Persons requesting building permits for the property in last 5 years: _____

k) Other persons involved in the fire: _____

The Investigation Form is to be completed within one week¹ after the case is received by the investigation unit, and it is to be updated when the case is closed.

C.2 Monitor Case Processing

Purpose

A Logbook is used to monitor case processing. By "case processing" we mean to include the following activities:

- opening the case
- assigning it to an investigator
- completing the investigation form, and
- closing the case.

The ability to monitor case processing allows the investigative supervisor to know what cases are being worked on, who is working on a particular case, and at what stage of processing the case is.

Case Opening

As soon as a case comes to the attention of the investigation unit, it is entered on a line of the Logbook Sheet shown in Figure C.2. A case is open from the time it is received for investigation until active investigation ceases. A case is opened by using the Logbook to create a record for the case by assigning the next available Arson File Number and labeling a folder in the Case File with this number. The date of receipt of the case, date of occurrence of the fire, and the address of the fire are also entered in the Logbook. This entry identifies a record in the system with a unique fire.

Assigning Cases to Investigators

As soon as a case is assigned to an investigator, his name is written in the Logbook. This entry makes it possible to determine immediately who is responsible for the handling of any case.

¹One week is only an example of a time limit. Any other time limit could be chosen as well. However, changing this time limit will affect other schedules, such as how soon after the end of a month the monthly report described in Section C.4 can be prepared.

FIGURE C.2

LOGBOOK SHEET

1	2	3	4	5	6	7	8	9	10	11
Arson File Number	Date of Receipt of the Case	Date of Fire	Address of the fire	Investigator to whom Case is Assigned	Date Investigation Form Was Initially Completed	Cause Determined: A=Accidental I=Incendiary U=Undetermined	Estimated Dollar Loss	# of Fatalities	# of Civilian Injuries	Date Case Was Closed
							\$			
							\$			
							\$			
							\$			
							\$			
							\$			
							\$			
							\$			
							\$			
							\$			
Cross references to cases submitted more than two days after the fire occurred:		1)			2)			3)		

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Completing the Investigation Form

Before the case is a week old, the investigator completes the Investigation Form, adds the form to the case folder in the case file, and enters the date of completion of the Investigation Form, the cause determined, the estimated dollar loss, and number of deaths and injuries in the Logbook. Periodically the investigative supervisor may scan the logbook to see that Investigation Forms have been completed for cases more than a week old. The remaining information in the Logbook is used in Section C.4 below to prepare a monthly report.

Case Closing

A case is closed when no further activity on the case is expected. Explicit criteria should be established for closing cases. Circumstances under which cases must be closed might be: "There has been no activity on the case for 4 weeks and no further investigative or judicial activity is expected." On the other hand if any judicial processing is expected, cases should be kept open until judicial processing is complete or until sentencing occurs.

To close a case, the investigator rechecks the information contained on the Investigation Form and in the Logbook to insure that it is accurate, enters the date the case was closed in the Logbook, and moves the folder in the Case File from the open cases section to the closed cases section.

In order to monitor case progress the investigative supervisor might wish to review cases older than a certain number of months. These cases can be easily identified, since the Case File folders in the section for open cases are filed in order of the age of the case--the oldest cases having the lowest Arson File Numbers.

C.3 Index Cases by Date

Purpose

The Logbook can be easily used to identify all fires received for investigation on a particular day, because the cases are entered in the Logbook in order of the date they are received and these dates are entered in the second column of the Logbook Sheet.

It is desirable to be able to locate all fires that occurred on a particular day, in order to locate the records of the investigation of particular fires and for certain reporting purposes, such as for the Monthly Report described in the next section. Although column three of the Logbook sheet contains this date, indexing this information is somewhat more difficult since fires are not always received for investigation on the day they occurred.

¹The Investigation Form is later revised with final data when the case is closed.

Implementation

Since most fires are received for investigation shortly after they occur, most of the fires occurring on a particular date can be identified by looking at all entries made in the Logbook on that day and the next two days. All of the remaining fires occurring on a particular day can be identified from the Logbook if a cross reference is added to the Logbook for any investigation that is received more than two days after the fire occurred. To do this, care must be taken when first entering a case in the logbook that is more than two days old to go back to the place in the Logbook where the case would have been entered if it had been received in a timely manner. A cross reference giving the date of receipt of the tardily submitted case would be entered there. Then when one is trying to identify all fires that occurred on a particular day, one will know to go forward in the Logbook to pick up the tardily submitted case.

The Logbook Sheet shown in Figure C.2 has 3 boxes at the bottom of the page for writing in the Arson File Numbers of tardily submitted cases that should have been received on the same date as the other cases on that page. With the addition of cross-references for tardily received cases, the logbook can serve as an index to the case file by date of occurrence of the fire as well as by date of receipt of the case.

C.4 Produce Monthly Statistics

Purpose

This section describes how the Logbook can be used to produce a monthly report on the activities of the investigation unit and on the occurrence of arson during the month. This report can serve as a means for reporting to superiors on the activities of the investigation unit. The monthly report also permits detection of changes in the volume of arson.

The amount of detail contained in the monthly report is intended to be limited. A more comprehensive description of the arson problem and the activities of the investigation unit are contained in the annual report described in sections C.8 to C.11 below.

Implementation

The Monthly Report Form shown in Figure C.3 summarizes some of the statistics which might be helpful to calculate on a monthly basis and which may be easily retrieved from the information stored in these files. The method for calculating the data to be entered on each line of the form is given below.

¹The choice of two days is fairly arbitrary. Choosing another time interval will merely shift the balance between number of cross references entered and amount of search time.

Ideally, the monthly report would be prepared one week after the end of the month described in the report. Once these monthly reports have been prepared for a year, the statistics from the same month of the previous year can be presented for comparison purposes in a second column to the right of these statistics for the current month as shown in Figure C.3.

1) Number of cases opened. This is a measure of the volume of work received by the investigation unit. Since entries in the Logbook are in order of date of receipt of the case, to calculate the number of cases opened during a particular month, one merely counts the number of entries in the Logbook between the entries for the first and last days of the month.

2) Number of cases closed. This is a measure of the amount of work accomplished by the investigation unit. To collect this statistic, every time he closes a case the investigator writes the Arson File Number and the date the case was closed on the Cases Closed Log Sheet shown in Figure C.4. In order to calculate the number of cases closed during the month for the monthly report, the number of cases listed on the Cases Closed Log Sheet are counted. A new Cases Closed Log Sheet is started each month.

Note that the file of Cases Closed Log Sheets serves as an index to the Case File by date of case closing.

3) Number of cases pending at end of month and cases pending at end of previous month. This is a measure of how much of a backlog of cases the unit is carrying. By comparing it with the cases pending last month, it assesses the reduction in backlog. To collect this measure, the number of folders in the open cases section of the Case File is counted on the last day of each month and recorded on the Monthly Report Form for that month.

4) Cause determinations for cases opened this month. This provides information on the number of incendiary fires occurring this month as an indication of trends in arson rate.

Columns 2 and 7 of the Logbook are used to determine which cases were opened this month and to count the number of these cases which were due to each cause. Any fire for which a cause determination has not been entered is counted as "pending cause determination."

5) Estimated dollar loss in incendiary cases opened. This is a measure of the magnitude of the arson problem that reflects the severity of the fires that were set as well as the number of fires.

¹Agreement among the counts reported in items 1-3 can be checked in the following way: item 3a = item 3b + item 1 - item 2 + number of cases reopened after closing. That is to say, number of cases pending at end of month (item 3a) should equal number of cases pending at end of previous month (item 3b) plus number of cases opened (item 1) minus number of cases closed (item 2) plus number of cases reopened after closing (not reported).

²The descriptions of arsons in the jurisdiction will be inaccurate to the extent that undetected arsons occur. See Chapter 2 for a discussion of some of the factors that can contribute to this problem.

FIGURE C.3
MONTHLY REPORT FORM

Activities of investigation unit for the month of _____ 19__		Same Month Last Year
1.	Number of cases opened:	_____
2.	Number of cases closed:	_____
3.	a. Number of cases pending at end of month:	_____
	b. Number of cases pending at end of previous month:	_____
4.	Number of cases opened this month where cause determined to be:	
	a) incendiary:	_____
	b) accidental:	_____
	c) undetermined:	_____
	d) pending cause determination:	_____
5. a)	Estimated dollar loss in incendiary cases opened:	\$ _____ \$ _____
b)	Number of incendiary cases pending dollar loss estimates:	_____
6. a)	Number of fatalities in incendiary cases opened:	_____
b)	Number of civilian injuries in incendiary cases opened:	_____
7.	Number of persons arrested this month:	_____

CASES CLOSED LOG SHEET
FOR MONTH OF _____ 19____

[illegible]

Last Name _____, First _____, Middle _____
 Also known as: _____
 Cases this person is involved in:

Arson File Number	Fire Cause	Role this person played (e.g. owner)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Note here the arson file numbers of any case files listed above which contain extensive information on this person:

Columns 2 and 7 of the Logbook are used to identify the incendiary fires that occurred this month. The estimated dollar losses for these incendiary fires listed in column 8 are summed to produce this statistic. If any of these fires do not have dollar loss estimates reported, the number of such cases is reported on the next line of the Monthly Report Form entitled, Number of incendiary cases pending dollar loss estimates.

6) Number of fatalities in incendiary cases opened; Civilian injuries in incendiary cases opened. These are also measures of the magnitude of the arson problem. They are calculated in a manner similar to that used for (5) Estimated dollar loss in incendiary cases opened.

(7) Number of persons arrested this month. This statistic serves as a crude index of how well the investigation unit is performing at the task of apprehending offenders or at assisting another agency to do so. More sensitive measures of success at this task are described in Section C.9. This statistic can be collected by polling all of the investigators in the investigation unit on the first day of each month. Separate counts are maintained for arrests made in cases opened this month and cases opened in prior months.

C.5 Identify Suspects by Virtue of their Frequent Association with Fires Investigated

Purpose

By systematically keeping track of the names of owners, occupants, insurance agents, salvage contractors, mortgage holders, etc., it is sometimes possible to detect arson conspiracies that would otherwise go unnoticed, through the discovery that certain people are associated with fires more often than might be expected by chance alone. By keeping systematic track of the names of people associated with fires, it is also possible to keep track of suspects effectively. For example, a systematic means for keeping track of names of ostensibly innocent parties to fires will permit one to identify all the fires with which a person who becomes a suspect has previously been associated. This ability could help clear previously unresolved cases, implicate new suspects, or bring additional charges against a suspect.

Implementation

A Name File consisting of index cards in the format shown by Figure C.5 is intended to serve these purposes. Each local investigation unit must decide as a matter of investigation unit policy which names should be identified and entered into the Name File. For example, one must decide whether the name of the insurance adjuster should be determined in all structural fires investigated, in all arsons, or only when the information is easy to get.

As an example, the composite investigative information system proposed here requires that in all fires investigated, the investigator identify the names of the parties to the fire listed in the following items of the Investigation Form shown in Figure C.1 and enter their names in the Name File:

5c, 5d, 6a, 7a, 8a and 9a. Furthermore, when the damage caused by the fire is greater than \$10,000, the form also requires the investigator to identify the parties listed in items 11b, 11d, 11e, 12a and 14a-14k. The investigator is encouraged to enter the names of any additional parties to the fire which he feels are appropriate.

For any alias identified, a card is also added under the alias name. This "alias card" refers the reader to the primary name card where all the fires are entered.

These cards are stored in alphabetical sequence by the name of the person or his alias.

In order to keep the Name File current, the investigator must update it when initially completing the Investigation Form and upon closing the case. At these times, the investigator looks up in the Name File the name of each person listed on the Investigation Form. If a card exists for the person, then the Arson File Number, the cause determined, and the role he played in the fire (e.g. owner, adjuster, witness) are added to the existing card. If no card exists, the investigator prints a card by hand and adds it to the file. If, in the process of adding a name to the Name File, an investigator notices that the name has appeared in many investigations, the possibility that this person is involved in arson is raised.

C.6 Index Cases by Address

Purpose

It may be desirable to create an index that is capable of identifying the Arson File Numbers of all investigations of fires at a particular address. This index could be useful if the investigation unit is called upon to produce the records of the investigation of any fires occurring at a particular address.

Such an index by address is unnecessary if the local fire incident system can easily retrieve the dates of all fires located at a particular address, because once the date of the fire is known, the Logbook can be used to determine if an investigation of a fire occurring on that date was conducted at that address.

Implementation

If an index by address is to be included in the system, an Address File is constructed consisting of index cards in the format shown in Figure C.6. These cards contain the street address and the Arson File Numbers of any investigations conducted of fires at this address.

The address cards may be filed alphabetically by street name, followed by numbered streets and avenues in numerical order. Addresses on the same street may be arranged in order of street number.

[illegible]

Purpose

Another optional feature of the composite system is a Geographic File. Several different applications can be served by the ability to access cases by their geographic location. One application is to identify all recent arsons near a particular arson target in order to discover similarities in modus operandi etc, that might lead to identification of a suspect. For such an application the jurisdiction might be subdivided by a grid into small rectangular regions.

A second application is to report arson incidence separately for different geographic subdivisions within the jurisdiction in order to carry out separate analyses of the arson problem in each subdivision. The arson rate in each subdivision of the jurisdiction can be compared with other attributes of these subdivisions such as vacancy rates, mortgage foreclosure rates, and income levels to try to explain and control arson incidence. (This type of analysis is recommended in Chapter 4 of this report.) If this is to be the most important application of this function of the information system, then geographic subdivisions should be defined so as to coincide with those subdivisions for which the best data are available. These subdivisions would probably be census tracts, census blocks or some other subdivision used by the local planning department.

If the local fire incident system reports on total fire occurrence by geographic subdivision within the jurisdiction, and if the regions used in the two systems match, then analyses of the proportion of total dollar loss that is due to incendiary fire can be carried out for geographic subdivisions of the jurisdiction. That is to say, analyses of the nature and extent of the arson problem can be carried out for each of the geographic subdivisions of the jurisdiction. If this is to be the most important application of this function of the information system, then geographic areas should be defined so as to coincide with those areas used in the local fire incident system.²

¹ Note that the method used in the previous section to access cases by address will not serve to access cases by geographic location because the sequence of cards in the Address File is not closely related to geographic location.

2. It may be that the local fire incident system alone can accomplish the purpose of reporting on fires by geographic subdivision. Three things must be true before this can happen, however. First, the local fire incident system must have a data element which can identify fires determined to be incendiary, such as the Ignition Factor data element from the NFPA 901 standard, Uniform Coding for Fire Protection, discussed in section 5.2.1 of the main report. Second, this data element must be consistently updated to reflect the outcomes of investigations by the investigation unit. Third, the local fire incident system must be capable of providing separate counts of fires occurring in particular geographic subdivisions of the jurisdiction.

In order to carry out this purpose, the system uses a map of the jurisdiction showing the geographic areas into which it has been subdivided and a Geographic File of log sheets formatted as shown in Figure C.7.

Each area is labeled on the map with a number, letter or name, and the Geographic File is ordered according to these labels (that is, if each area is labeled with a number, the sequence is numerical; if each label is a name, the sequence is alphabetical.) What is essential is that it be possible to take the label of any area from the map and go directly to the Geographic Log Sheet listing all of the investigations in that geographic area. In a computerized system, a code could be added to the investigative file for geographical region and cases could be sorted and printed out by region.

At the time when he first fills out the Investigation Form, the investigator (or secretary) locates the fire on the map and writes the label of the area where the fire is located in item number 3c of the Investigation Form. He also locates the Geographic Log Sheet for this area and adds to the sheet the Arson File Number, date of the fire, cause of the fire, and estimated dollar loss. The Geographic Log Sheet is updated at the time of case closing if any of this information changes. Reports can be generated from the Geographic File on a monthly, quarterly or annual basis. These reports can provide counts by geographic area of the number of investigations, the number of incendiary fires, etc. For example, to get the number of incendiary fires occurring during a particular period in a particular area, one would simply count the number of cases having appropriate dates and marked "Incendiary" on each sheet.

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GEOGRAPHIC LOG SHEET

[illegible]

C.8 Produce Statistics for Management of the Investigation Unit

Purpose

The following three sections discuss generation of statistics for an annual report for the investigation unit that serves the purposes of:

Section C.9: Providing feedback on the rate of success in prosecuting offenders;

Section C.10: Providing information on the nature and extent of the arson problem; and

Section C.11: Monitoring the expenditure of the resources of the investigation unit.

The information system accomplishes these purposes by describing such variables as the type of target of the arson, the amount of damage caused by the arson, arrest rates, and the amount of resources expended on cases. The system also describes the relationships between certain of these variables by crosstabulating the two variables. The purpose of the present section is to explain with a simple example how the crosstabulation sheets are used to generate statistics for the annual report.

Implementation

All fires occurring during a particular year are described in the annual report for that year. A set of crosstabulation sheets is maintained for all fires occurring during a particular year. Every time a case is closed, it is tabulated by a secretary or other clerical staff member on each crosstabulation sheet of the set of sheets for the year when the fire occurred. The information on the Investigation Form is used by the secretary to determine where on the crosstabulation sheet the case belongs. Figure C.8 gives an example of one such crosstabulation sheet involving two variables: severity of fire and type of arson target. In this particular crosstabulation, the variable, type of arson target, is defined by items 3a and 3d of the Investigation Form:

- Arson: vacant structures,
- Arson: unoccupied structures,

¹This report could be prepared on a more frequent basis in a jurisdiction with a large volume of incendiary fires, if that were desirable.

²The local fire incident system may be capable of producing a crosstabulation very similar to this one, if it contains a data element reflecting the outcome of the cause determination made by the investigation unit, and if that data element is faithfully updated after the cause determination is completed.

FIGURE C.8: SEVERITY OF FIRE BY TYPE OF ARSON TARGET

TYPE OF TARGET	This fire was determined not to be incendiary	A death occurred in this fire	SEVERITY OF FIRE										ROW TOTAL
			No deaths occurred in this fire and dollar loss =										
			loss undetermined	\$0	\$1-99	\$100-999	\$1000-9999	\$10,000-24,999	\$25,000-49,999	\$ 50,000-249,999	\$250,000-999,999	\$1,000,000 or more	
	"Midpoints"	--	--	\$0	\$50	\$550	\$5,500	\$17,500	\$37,500	\$150,000	\$625,000	\$1,000,000	
	Arson: Vacant Structures			II		III	III	III	II	I			14
	Arson: Unoccupied Structures			(2)		(3)	(3)	(3)	(2)	(1)			14
	Arson: Occupied Structures	II		II	III	II	III II	II	I	I			20
	Arson: Vehicle Fires			III	II	III III	III II III	III					31
	Arson: Other Fires		III III	III III III	III	I	I		I				40
	Column Total	2	8	33	9	14	29	11	7	4	2		119

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TYPE OF TARGET

- Arson: occupied structures,
- Arson: vehicle fires, and
- Arson: other fires.

Any other way of classifying type of target could be used instead, as long as each arson fire belongs in one of the categories and only one of the categories.

The variable, severity of fire, is defined in terms of the estimated dollar loss caused by the arson (item 4d on the Investigation Form), and by whether the arson caused any deaths (item 4a on the Investigation Form). In this example, a fatal fire is treated as if it were more severe than a non-fatal fire, regardless of how much property damage the non-fatal fire caused. One could use different categories to define severity of fire, however. For example, one might want to use categories that considered injuries as well as deaths and dollar loss. It is important, however, that the categories be defined so that each fire belongs in one and only one category of severity.

Every fire investigated belongs in one of the boxes on each crosstabulation sheet. For example, a fire in a vacant structure causing no deaths and \$50 damage should be tallied in the fourth box in the first row. The secretary's task is to enter one tally mark on each crosstabulation sheet for each case closed.

Each fire belongs in only one of the boxes. If the fire does not belong in one of the boxes in the main body of the table, it will belong in the single box in the upper left corner of the crosstabulation sheet. Any fire that can be put in the single box in the upper left corner should be put there instead of trying to find another place for it in the main body of the table. For example, in Figure C.8 any investigated fires determined not to be incendiary belong in the box in the upper left corner.

By the time the annual report is prepared, every fire investigated will be entered in one and only one box on the crosstabulation sheet. In Figure C.8 a number of illustrative cases have been tallied on the sheet and the total number of cases in each box has been circled. These data are entirely hypothetical.

¹Special attention must be given to any investigations still open of fires occurring during the year described by the annual report, because cases are not entered onto the crosstabulation sheets until they are closed. In order to reduce the number of open cases to a minimum, it may be desirable to delay the preparation of the annual report until several months after the end of the year in question.

If the number of cases open at the time the report is to be prepared is very small, it may be possible to ignore those open cases except for a footnote that details the status of all open cases.

By adding up the number of cases in each row of the table given in Figure C.8, it is possible to tell in which type of target most of the arsons occurred. The total number of cases in each row is entered at the right edge of the sheet in the column labeled "row total." By looking at the total number of fires in each row, in this example it is clear that the smallest categories of targets are vacant structures (14 arsons) and unoccupied structures, (14 arsons) and that the largest category of targets is other fires (40 arsons). Through this examination of the number of fires in each type of target, it would appear that the "other fires" constitute a significant problem.

By adding up the number of arsons in each column, it is possible to tell which severity of fire occurred most often. The total number of fires in each column is entered at the bottom edge of the sheet in the row labeled "column totals." Examination of these column totals reveals that the largest number of arsons were in the zero dollar loss category, (33 arsons) but that almost as many arsons (29) fell in the \$1000 to \$9999 range.

The value of crosstabulating these variables is shown by examining the cells within the table--not just the row totals and the column totals. For example, by looking at the cells in the first and second rows, it is possible to notice that the arsons in vacant and unoccupied structures tend to be more severe than the fires in vehicles and "other fires." In fact, the "other fires" category consists mostly of fires that did no damage at all. This gives a quite different picture of the importance of the "other fires" category than did the examination of number of fires in each category.

If there are more than a few cases open, however, the individual preparing the report should get the most current information on each open case and then tabulate it as if it had been closed. In order to preserve the set of crosstabulation sheets for possible future reference, it is desirable to photocopy the crosstabulation sheets before entering any open cases, and to enter the open cases on the photocopy. In that way, the original copy of the crosstabulation sheets will remain an accurate description of closed cases and the open cases can later be tabulated onto those sheets when they are actually closed.

A similar threat to the integrity of the crosstabulation sheets occurs if a closed case is reopened for some reason. That is, if some of the information on the Investigation Form is changed as a result of the renewed investigation, that may dictate that a tally mark should move from one box to another on one of the crosstabulation sheets. One way to keep the crosstabulation sheets accurate is to go through the crosstabulation sheets when a case is reopened to remove all of the tally marks that the case produced when it was closed. Then when the case is closed for the second time, it can be tabulated on all the sheets as if it had never been entered before. Another way to accomplish the same end is to have the investigator make changes to a photocopy of the original Investigation Form when he closes the case for the second time. By seeing which items on the Investigation Form have been changed, the secretary can determine which tally marks have to be moved.

With the arsons crosstabulated in this way, it is possible to estimate the total dollar loss in each type of target. Such an estimate would summarize in a more precise manner the observation that "other fires" tend to be less severe than structure fires. One can make such an estimate by assuming that all the fires in a particular range of dollar loss fall at the midpoint of that range. For example, one would assume that the 3 fires in vacant structures that produced no deaths and dollar losses between \$100 and \$999 actually caused \$550 damage each. By multiplying 3 times \$550, we assume that these 3 fires caused a total of \$1650 damage. (Notice that the midpoint of each dollar loss range has been written in below the column headings in Figure C.8).

To calculate the total dollar loss due to arsons in vacant structures, the total dollar loss due to the fires in each of the other ranges of dollar loss is added to the \$1650 from the \$100 to \$999. This calculation produces an estimated total dollar loss in vacant structures of \$295,650¹. The total dollar loss for the other types of targets can be estimated by the same process. The estimated dollar losses in the example of Figure C.8 are as follows:

- Arson: vacant structures: \$ 295,650
- Arson: unoccupied structures: \$1,725,000
- Arson: occupied structures: \$ 262,250
- Arson: vehicle fires: \$ 146,000
- Arson: other fires: \$ 43,750

These estimates show that although there are more than twice as many incendiary "other fires" as there are arsons in unoccupied structures in our hypothetical example, the dollar loss due to arsons in unoccupied structures is nearly 40 times greater than the dollar loss due to incendiary "other fires." This finding would imply that far more attention should be devoted to investigating and preventing arsons in unoccupied structures than to investigating and preventing incendiary "other fires" in this site.

Just as it is possible to estimate the total dollar loss caused by the arsons in each type of target, it is also possible to calculate the total dollar loss caused by the arsons in each range of dollar loss. Thus,

¹The \$295,650 is the sum of \$1650 from the \$100-\$999 range, plus \$16,500 from the 3 fires in the \$1000 to \$9999 range, plus \$52,500 from the 3 fires in the \$10,000 to \$24,999 range, plus \$75,000 from the two fires in the \$25,000 to \$49,999 range, plus \$150,000 from the one fire in the \$50,000 to \$249,999 range.

considering only the number of fires, it would appear that small dollar loss fires (85 fires causing less than \$10,000 damage each) are more of a problem than large dollar loss fires (2 fires causing more than \$250,000 damage each). However, it is possible to estimate the total dollar loss caused by fires in each category of severity of fire in a manner similar to that used above for type of arson target. This analysis shows that the two fires in the over \$250,000 category caused considerably more damage than the 85 fires in the under \$10,000 category caused altogether. This fact would argue that the total number of manhours (and other resources) devoted to investigating the two large loss fires should be greater than the total number of manhours devoted to the 85 small loss fires. While most investigation units would tend to devote more time to the investigation of a large loss fire than a small loss fire, it is probably unusual for the amount of time devoted to an investigation to be proportional to the size of the loss being investigated, as we are suggesting here.

In this section we have shown one example of how cases can be tabulated onto a crosstabulation sheet at the time the cases are closed. We have shown how the crosstabulation sheets can be used to generate information for an annual report that is useful in directing arson control activities in a local jurisdiction. In the following sections, we will present a number of additional crosstabulation sheets that can generate information on several different areas of interest in managing an investigation unit and providing overall direction to arson control efforts.

¹To make these estimates, we again assume that all the fires in a particular range fall at the midpoint of the range. Thus, we assume that the 9 fires in the \$1-\$99 range caused \$50 damage each for a total of \$450 damage. The total damage caused by the fires in the other ranges can be calculated in a similar fashion:

Severity of Fire	Total Dollar Loss
\$1 to \$99 range (9 X \$50):	\$ 450
\$100 to \$999 range (14 X \$550):	\$ 7,700
\$1000 to \$9999 range (29 X \$5,500):	\$ 159,000
\$10,000 to \$24,999 (11 X 17,500):	\$ 192,500
\$25,000 to \$49,999 (7 X \$37,500):	\$ 262,500
\$50,000 to \$249,999 (4 X \$150,000):	\$ 600,000
\$250,000 to \$999,999 range (2 X \$625,000):	\$1,250,000

C.9 Provide Feedback on the Rate of Success in Prosecuting Offenders

Purpose

This section describes how the information system can be used to collect information showing the success of the investigation unit in achieving the arrest, prosecution and conviction of offenders. Crosstabulation sheets are used to show how the success rate may differ by type of target or severity of fire. The crosstabulations shown here are only examples of the kinds of analyses that investigation units might want to undertake.

Implementation

The system requires that a case be kept open as long as there is any realistic hope of achieving a conviction. It is probably desirable to make the investigator to whom the case is assigned responsible for keeping track of the case after it has been turned over to someone outside of the investigation unit, whether that be the prosecutor or a police investigator. When the investigator discovers that the case has proceeded as far as it is going to get in the judicial system, he closes the case and describes the outcome of judicial processing in item 10 of the Investigation Form.

Three crosstabulation sheets are proposed here for illustrative purposes. The first sheet, shown in Figure C.9, describes the relationship between the severity of the fire and the apprehension of an adult or a juvenile. As before, any fire found not to be incendiary is to be tallied in the box in the upper left corner of the form. The columns of this crosstabulation sheet are defined by the variable, severity of fire, (taken from items 4a and 4b of the Investigation Form) just as they were in Figure C.8 in Section C.8. The rows of Figure C.9 are defined by whether an adult or juvenile was apprehended for the arson in question (Item 10 of the Investigation Form). If at least one adult was arrested or indicted in the case, an entry should be made in the first row. The intent in the first row is to capture any cases where formal charges were filed against an adult. If charges were brought against juveniles only, the case should be tallied in the second row. Row 3 is for cases that are not expected to result in charges being brought against anyone (i.e. case dropped without an arrest). The fourth row captures any pending cases where the outcome is not yet clear.

Examination of the row totals on this sheet gives a picture of the overall "arrest rate" for arson in the jurisdiction, and a picture of the adult versus juvenile breakdown. By looking at individual cells, it is possible to separate the arrest rate for small fires from the arrest rate for large fires. If almost all of the arrests are for fires where no dollar loss occurred, then a redirection of the unit's efforts is probably in order.

Figure C.10 crosstabulates severity of fire by furthest stage of judicial processing reached. Item 10 of the Investigation Form provides the information needed to classify cases by furthest stage of judicial processing reached. In general, the further a case progresses into the judicial system before it is dropped, the lower down the page would be the row of Figure C.10 in which it is tallied.

FIGURE C.9: SEVERITY OF FIRE BY APPREHENSION OF ADULT OR JUVENILE

SEVERITY OF FIRE												
This fire was determined not to be incendiary	A death occurred in this fire	No deaths occurred in this fire and dollar loss =										ROW TOTAL
		loss undetermined	\$0	\$1-99	\$100-999	\$1000-9999	\$10,000-24,999	\$25,000-49,999	\$ 50,000-249,999	\$250,000-999,999	\$1,000,000 or more	
"Midpoints"	--	--	\$0	\$50	\$550	\$5,500	\$17,500	\$37,500	\$150,000	\$625,000	\$1,000,000	
Arson where arrest or indictment of at least 1 adult has occurred												
Arson where "arrest" or "indictment" of juvenile only has occurred												
Arson where no arrests or indictments are expected												
Pending arson case where it is not clear whether an arrest or indictment will occur												
Column Total												

APPREHENSION OF AN ADULT OR JUVENILE
495

FIGURE C.10: SEVERITY OF FIRE BY FURTHEST STAGE OF JUDICIAL PROCESSING

SEVERITY OF FIRE

This fire was determined not to be incendiary	A death occurred in this fire	No deaths occurred in this fire and dollar loss =										ROW TOTAL
		loss un-determined	\$0	\$1-99	\$100-999	\$1000-9999	\$10,000-24,999	\$25,000-49,999	\$ 50,000-249,999	\$250,000-999,999	\$1,000,000 or more	
"Midpoints"	--	--	\$0	\$50	\$550	\$5,500	\$17,500	\$37,500	\$150,000	\$625,000	\$1,000,000	
Arson where no suspect was identified												
Arson where a suspect was identified but not arrested												
Arson where a suspect was arrested but not "indicted"												
Arson where a suspect was indicted but not convicted												
Arson where an offender was convicted but was not imprisoned												
Arson where an offender was imprisoned												
Column Total												

FURTHEST STAGE OF JUDICIAL PROCESSING REACHED
496

The row totals show where cases tend to fail overall, and examination of the individual cells will show if large fires tend to fail at a different place than small fires.

Figure C.11 crosstabulates type of target by furthest stage of judicial processing reached. Both of these variables have been discussed earlier. The reason for crosstabulating them is to see if cases tend to fail at different stages of judicial processing for different types of targets.

It should be clear that it is quite easy to specify a very large number of crosstabulations that might be interesting. Unless some restraint is shown, the number of crosstabulation sheets can become so large that the secretary's job can become impossible.

One of the ways in which a computerized investigative information system is superior to a manual system is that additional crosstabulations can be carried out by a computer with very little additional cost, whereas they are very laborious to carry out by hand.

C.10 Provide Information on the Nature and Extent of Arson in the Local Jurisdiction

Purpose

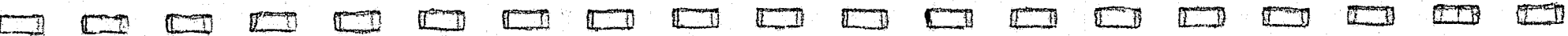
The purpose of collecting information on the nature and extent of the arson problem is to guide arson control strategy in the local jurisdiction. This need is discussed in detail in Chapter 2 dealing with the nature and extent of the arson problem. Much of the information required for this purpose has already been discussed in connection with other purposes which the data serve. This section will discuss how the information already developed can be compared with information from other sources to shed more light on the arson problem. In addition, this section will discuss a useful way to collect information on motives of arsonists.

Implementation

Procedures for generating a considerable amount of information on the nature and extent of the arson problem have already been discussed. The figures developed for the monthly report described in section C.4 can be summed across all twelve monthly reports for a given year to produce comparable statistics for the entire year. This can yield counts of the total dollar loss, fatalities, and civilian injuries caused by arsons in cases opened during the year. Methods for generating reports of the geographic distribution of number of arsons and dollar loss due to arson were presented in section C.7. Finally section C.8 presented a crosstabulation table that provides counts of the number of arsons committed against different types of property and counts of the number of arsons in each of several categories of severity of fire.

FIGURE C.11: TYPE OF TARGET BY FURTHEST STAGE OF JUDICIAL PROCESSING

		TYPE OF TARGET					
FURTHEST STAGE OF JUDICIAL PROCESSING	This fire was determined <u>not</u> to be incendiary	Arson in a vacant structure	Arson in an unoccupied structure	Arson in an occupied structure	Arson of a vehicle	Arson: other fires	Row Total
	Arson where no suspect was identified						
	Arson where a suspect was identified but not arrested						
	Arson where a suspect was "Indicted" but not "indicted"						
	Arson where a suspect was indicted but not convicted						
	Arson where an offender was convicted but was not imprisoned						
	Arson where an offender was imprisoned						
	Column Total						



Each of the above analyses divides all arsons into several categories and counts the number of arsons in each category. Useful comparisons can be made if comparable counts of all fires, accidental and incendiary, can be derived from the local fire incident system. We have tried to define the categories used in the crosstabulation tables given here so that they are consistent with the categories used in the NFPA 901 standard, Uniform Coding for Fire Protection. The categories actually used in a local investigative information system should be defined so that they are consistent with the local fire incident system, so that comparable counts are possible.

If comparable counts of arsons and all fires are calculated, then the following questions can be answered in the annual report:

- What percentage of all fires are due to arson?
- What portion of total dollar loss due to fire is attributable to arson?
- What portion of all fire deaths and injuries are caused by arson?
- What portion of the overall fire problem in different sections of the jurisdiction is due to arson, considering both number of fires and the amount of damage caused by those fires?
- What portion of fires in different targets, such as structures and vehicles, is due to arson, considering both number of fires and the damage caused by those fires?
- What portion of large-loss fires are due to arson and what portion of small-loss fires are due to arson, considering both number of fires and total dollar loss caused by those fires?

When comparable information is available from prior years, a comparison with the figures from prior years can identify trends in the nature of arson over time.

The type of information about the nature of arson that is most useful in guiding local arson control efforts is information on the motives of arsonists. Some of the reasons why motive information is so useful are discussed in Chapter 2.

One of the major problems in capturing motive information is that motive is often unknown. The method of collecting motive information proposed in Section 2.6 is used in this investigative information system. Section 2.6 discusses a number of considerations relevant to collecting information on motive. This method maximizes the amount of information on motive that is captured for analysis, and it also provides information about how certain the information on motive is.

To capture motive information, the investigator completes item 3e of the Investigation Form at the time the case is closed. This item asks the investigator to indicate, for each of several motives, whether that motive is definitely a motive, possibly a motive, or definitely not a motive for the arson described by the Investigation Form.

Four possible motives are considered on the Investigation Form, arson for profit, spite and revenge, vandalism, and pyromania. The local jurisdiction should use those categories of motive that are most useful in the local context. Several issues to consider in establishing categories of motive are discussed in Section 2.6. A small number of motives is used here in order to simplify the presentation.

When a case is closed, the secretary tabulates the case onto each of the four crosstabulation sheets shown in Figures C.12 to C.15. Hypothetical data has been tabulated onto the first of these tables in Figure C.12. The columns of all of these crosstabulation tables are defined by the categories of the variable, severity of the fire. The rows of each table are defined by whether a particular motive was believed to be operating in the case being tabulated. Thus, if arson for profit is possibly a motive but not definitely a motive in a particular case, that case would be tabulated in the second row of the crosstabulation sheet shown in Figure C.12. If nothing at all is known about the motive in a particular case, then that case would be tabulated in the second row of each of the four tabulation sheets given in Figures C.12 to C.15.

If spite and revenge is known to be the motive in a particular case, that case would be tabulated in the top row of Figure C.13, indicating that spite and revenge was definitely a motive, and it would be tabulated in the bottom rows of the other three crosstabulation sheets, indicating that these motives were not operating.

The hypothetical cases tallied onto Figure C.12 can be analyzed to reveal several things. The total for the first row indicates that at least 7 of the 119 arsons described here are arsons for profit. The total for the second row indicates that an additional 14 cases might have been arsons for profit. By adding these two numbers together one can conclude that at most 21 arsons were arsons for profit. These two findings can be summarized by saying that 7 to 21 of the 119 arsons were arsons for profit, or 6-8 percent of the of the arsons in this hypothetical jurisdiction were arsons for profit. By a similar process, a range can be calculated from each of the other cross-tabulation tables describing the percentage of arsons that might have involved each motive. Each range gives the upper and lower limits for the number of arsons that might have been caused by each motive. The wider the range is, the less certain is the information about the prevalence of that motive.

It is also possible to look within a particular column of the table to look at motives for fires of a particular severity. Thus, one could say that between 2 and 4 of the 7 arsons that caused between \$25,000 and \$50,000 damage were arsons for profit.

FIGURE C.12: SEVERITY OF FIRE BY PRESENCE OF ARSON FOR PROFIT AS A MOTIVE

SEVERITY OF FIRE

This fire was determined not to be incendiary	A death occurred in this fire	No deaths occurred in this fire and dollar loss =										ROW TOTAL
		loss undetermined	\$0	\$1-99	\$100-999	\$1000-9999	\$10,000-24,999	\$25,000-49,999	\$ 50,000-249,999	\$250,000-999,999	\$1,000,000 or more	
"Midpoints"	--	--	\$0	\$50	\$550	\$5,500	\$17,500	\$37,500	\$150,000	\$625,000	\$1,000,000	
Arson for profit is <u>definitely</u> a motive in this arson						//	//	//	/			7
Arson for profit is <u>possibly</u> a motive in this arson			I		I	III	III	//	III	I		14
Arson for profit is <u>definitely not</u> a motive in this arson	//	III III	III III III III III III II	III III	III III III	III III III III III III III	III I	III		I		98
Column Total												
	2	8	33	9	14	29	11	7	4	2		119

105 PRESENCE OF ARSON-FOR-PROFIT MOTIVE

501
PRESENCE OF ARSON-FOR-PROFIT MOTIVE

FIGURE C.13: SEVERITY OF FIRE BY PRESENCE OF SPITE AND REVENGE AS A MOTIVE

SEVERITY OF FIRE												
This fire was determined not to be incendiary <input type="checkbox"/>	A death occurred in this fire	No deaths occurred in this fire and dollar loss =										ROW TOTAL
		loss un-determined	\$0	\$1-99	\$100-999	\$1000-9999	\$10,000-24,999	\$25,000-49,999	\$ 50,000-249,999	\$250,000-999,999	\$1,000,000 or more	
"Midpoints"	--	---	\$0	\$50	\$550	\$5,500	\$17,500	\$37,500	\$150,000	\$625,000	\$1,000,000	
Spite and revenge is <u>definitely</u> a motive in this arson												
Spite and revenge is <u>possibly</u> a motive in this arson												
Spite and revenge is <u>definitely not</u> a motive in this arson												
Column Total												

502 PRESENCE OF SPITE AND REVENGE AS A MOTIVE

FIGURE C.14: SEVERITY OF FIRE BY PRESENCE OF VANDALISM AS A MOTIVE

SEVERITY OF FIRE												
This fire was determined not to be incendiary	A death occurred in this fire	No deaths occurred in this fire and dollar loss =										ROW TOTAL
		loss undetermined	\$0	\$1-99	\$100-999	\$1000-9999	\$10,000-24,999	\$25,000-49,999	\$ 50,000-249,999	\$250,000-999,999	\$1,000,000 or more	
"Midpoints"	--	--	\$0	\$50	\$550	\$5,500	\$17,500	\$37,500	\$150,000	\$625,000	\$1,000,000	
Vandalism is definitely a motive in this arson												
Vandalism is possibly a motive in this arson												
Vandalism is definitely not a motive in this arson												
Column Total												

503
PRESENCE OF VANDALISM AS A MOTIVE

FIGURE C.15: SEVERITY OF FIRE BY PRESENCE OF PYROMANIA AS A MOTIVE

[illegible]

It is also possible to calculate an upper and a lower bound on the amount of damage caused by each motive in a manner similar to the way the amount of loss in each type of target was calculated in section C.4. Thus \$271,000 in property damage was caused by arsons known to be arsons for profit, and an additional \$1,219,550 in property damage was caused by arsons that might have been arsons for profit. Thus, between \$271,000 and \$1,490,550 in property damage was caused by arsons for profit.

This section has discussed several ways in which information on motives of arsonists can be analyzed to yield information of value in determining what kind of arson problem a jurisdiction has. A number of considerations to be borne in mind when gathering and using such information are given in Chapter 2.

C.11 Monitor the Expenditure of the Resources of the Investigation Unit

Purpose

The purpose of monitoring the expenditure of the resources of the investigation unit is to allow the investigative supervisor to see what kinds of cases are consuming the most resources. Three types of resources are considered here, investigator time, number of laboratory samples, and money spent on supplementary services such as accountants and electricians. These resources serve only as examples of the types of the resources that could be monitored in this way.

Implementation

Each day, each investigator fills out the Investigator's Time Sheet shown in Figure C.16, showing how much time he spent on each case that day, and showing any overtime he spent on any cases. At the end of the week a secretary identifies each case the investigator worked on that week, and transcribes the total number of regular and overtime hours that he spent on each case to the Resources Expended Form shown in Figure C.17. There is a separate Resources Expended Form for each case kept in its case file folder showing all of the monitored resources expended over the life of that case.

Whenever laboratory samples are submitted or money spent on supplementary services, a secretary tallies the expenditure of these resources on the Resources Expended Form for the appropriate case.

When a case is closed, a secretary totals the regular hours, overtime hours, money spent on supplementary services and number of samples submitted

¹ By looking at row 1 of Figure C.12 one can say that the 7 arsons known to be arsons for profit caused the following amount of damage: \$11,000 damage from the 2 fires in the \$1000-\$9999 range, plus \$35,000 from the 2 fires in the \$10,000-\$24 range, plus \$75,000 from the 2 fires in the \$25,000-\$49,999 range, plus \$150,000 from the 1 fire in the \$50,000 to \$249,000 range.

FIGURE C.16

INVESTIGATORS'S TIME SHEET

Investigator: _____

Week ending: _____

Arson File Identification Number of Case Investigated	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total Regular Hours	Total Overtime Hours

506



FIGURE C.17: RESOURCES EXPENDED FORM

Arson File Number: _____

Investigator's name →	Regular time spent on case						Overtime spent on case				Number of of lab samples submitted	Money spent on supplementary services	
						T o t a l						T o t a l	Amount
Week Ending													
												\$	
												\$	
												\$	
												\$	
												\$	
												\$	
												\$	
												\$	
												\$	
												\$	
												\$	
												\$	
TOTAL												\$	

for laboratory analysis listed on the Resources Expended Form and tallies the case onto crosstabulation forms similar to those shown in Figures C.18 and C.19. These crosstabulation sheets are illustrative of the kinds of analyses of resources expended that are possible. The crosstabulations shown here only deal with regular-time hours expended on cases. Overtime hours, laboratory samples and supplementary services are ignored.

The crosstabulation tables given in Figures C.18 and C.19 are different from previous crosstabulation tables in that both tables crosstabulate severity of fire by number of regular hours spent on the case. Figure C.18 tabulates arson cases. All non-arson cases are tallied in the box in the upper left corner of the table. Figure C.19, however, tabulates cases found to be accidental and completed cases where it was not possible to assign a cause. All the arson cases are tallied in the box in the upper left corner. It is, of course, possible to divide any of the crosstabulation tables we have presented into two tables in this manner, with one kind of case falling in one table and a second kind of case falling into a second table.

The data entered in these crosstabulation tables can be analyzed in the same manner as used on the tables presented earlier. It might be interesting to crosstabulate number of hours spent on a case with type of target or with how far the case penetrated into the judicial system before being dropped.

One reason for crosstabulating hours spent on the case with severity of fire in Figure C.18 is that one might expect that the average amount of time spent on a case to be roughly proportional to the severity of the damage caused by the fire in that case. Some hypothetical data are written into columns 1 and 2 of Figure C.18 to illustrate how one might calculate the average amount of time spent investigating a particular category of cases. In order to calculate the total number of manhours spent on the two cases where deaths occurred, we assume that each falls at the midpoint of its range of hours spent. Thus, in the first column, we assume that one of the deaths received 35.05 regular hours of investigation, and the other received 80.05 regular hours, for a total of 115.1 hours of investigation. This produces an average of 57.55 hours of investigation for the two cases where deaths occurred. This average can be compared with averages for other categories of severity. If resources are being allocated rationally, one should generally find that fires causing twice the dollar loss of other fires receive roughly twice the amount of investigative hours, and that, in general, fires causing deaths receive the most investigative attention.

¹Actually it would not be a good idea to place too much credence in the comparison of this average with another, because the group that this average is based on contains only 2 cases. Comparisons containing fewer than about 10 cases per group are generally unreliable.

FIGURE C.18: SEVERITY OF FIRE BY HOURS SPENT ON CASE FOR ARSONS

SEVERITY OF FIRE

This case not an arson case	"mid-points"	A death occurred in this fire	No deaths occurred in this fire and dollar loss =										ROW TOTAL
			loss un-determined	\$0	\$1-99	\$100-999	\$1000-9999	\$10,000-24,999	\$25,000-49,999	\$ 50,000-249,999	\$250,000-999,999	\$1,000,000 or more	
"Midpoints"		--	--	\$0	\$50	\$550	\$5,500	\$17,500	\$37,500	\$150,000	\$625,000	\$1,000,000	
0 - 1.0	.5												
1.1 - 5.0	3.05		III ③										
5.1 - 10.0	7.55		III ④										
10.1 - 15.0	12.55												
15.1 - 20.0	17.55												
20.1 - 25.0	22.55		I ①										
25.1 - 30.0	27.55												
30.1 - 40.0	35.05	I ①											
40.1 - 60.0	50.05												
60.1 - 100.0	80.05	I ①											
100.1 - 200.0	145.05												
200.1 - 500.0	350.05												
500.1 or more	500.1												
Column Totals		2	8				7						

605
MANHOURS SPENT ON CASE: ARSONS COMPLETED IN:

FIGURE C.19: SEVERITY OF FIRE BY HOURS SPENT ON CASE FOR NON-ARSONS

SEVERITY OF FIRE

This case is an arson case		"mid-points"	A death occurred in this fire	No deaths occurred in this fire and dollar loss =										ROW TOTAL
				loss undetermined	\$0	\$1-99	\$100-999	\$1000-9999	\$10,000-24,999	\$25,000-49,999	\$ 50,000-249,999	\$250,000-999,999	\$1,000,000 or more	
"Midpoints"			--	--	\$0	\$50	\$550	\$5,500	\$17,500	\$37,500	\$150,000	\$625,000	\$1,000,000	
0 - 1.0		.5												
1.1 - 5.0		3.05												
5.1 - 10.0		7.55												
10.1 - 15.0		12.55												
15.1 - 20.0		17.55												
20.1 - 25.0		22.55												
25.1 - 30.0		27.55												
30.1 - 40.0		35.05												
40.1 - 60.0		50.05												
60.1 - 100.0		80.05												
100.1 - 200.0		105.05												
200.1 - 500.0		350.05												
500.1 or more		500.1												
Column Totals														

MANHOURS SPENT ON CASE: NON-ARSONS COMPLETED IN:

510

015
MANHOURS SPENT ON CASE: NON-ARSONS COMPLETED IN:

C.12 Summary

The activities to be carried out in order to operate the composite investigative information system presented in this appendix can be summarized by listing the actions to be taken at each stage of case processing. We have listed these actions under the stage of case processing below, along with the section of this appendix where that activity is discussed in detail. Note that the timing of these activities, in some cases, is suggestive only. We do believe, however, that timely entry of data and follow-up will help to ensure the accuracy and utility of the system.

1) When case is opened:

- a) Enter case in Logbook (Section C.2)
- b) Assign Arson File Number (C.2)
- c) Create Case File folder (C.1 and C.2)
- d) Add cross references to Logbook for cases received more than 2 days after the fire occurred (C.3)
- e) Add Arson File Number to Address File (C.6)

2) One week after case is opened:

- a) Complete Investigation Form and file it in Case File (C.1)
- b) Add cause, dollar loss, deaths and injuries to Logbook entry (C.2)
- c) Add all names identified to the Name File (C.5)
- d) Add Arson File Number, date of fire, cause of fire and estimated dollar loss to appropriate sheet of the Geographic File (C.7)

3) When case is closed:

- a) Revise Investigation Form and information in Logbook entry (C.2)
- b) Enter date closed in Logbook (C.2)
- c) Move Case File folder from open cases section to closed cases section (C.2)
- d) Enter date and Arson File Number on the Cases Closed Log Sheet (C.4)
- e) Add additional names, if any, to Name File (C.5)
- f) Update entries to Geographic File if necessary (C.7)
- g) Secretary uses Investigation Form to enter each case on each crosstabulation sheet in the set of crosstabulation sheets for the year in which the fire occurred (C.8 - C.11)

4) When a closed case is re-opened:

- a) Secretary "backs out" all tallies for that case entered on crosstabulation sheets (C.8)

5) When lab samples are submitted or charges are received for supplementary services:

- a) Secretary enters data on the Resources Expended Form of the case involved (C.11)

6) Last day of each week:

- a) Investigators submit Investigator's Time Sheet and secretary transfers time spent on each case to the Resources Expended Form (C.11)

7) First day of the month:

- a) Count the number of folders in the open section of the Case File (C.4)
- b) Secretary polls investigators to find out how many arrests each made during the previous month and enters the sum on the Monthly Report Form (C.4)

8) One week after end of month:

- a) Secretary prepares the Monthly Report (C.4)

9) Annually:

- a) Secretary prepares the Annual Report (C.8 - C.11)

APPENDIX D

Rhode Island Training Materials
on Fire Scene Examination
and Evidence Collection

AND

PROCEDURES FOR THE COLLECTION,
PACKAGING, TRANSMITTAL, AND STORAGE
OF INCENDIARY CRIME EVIDENCE.



COMPLIMENTS OF :

DENNIS J. ROBERTS II
ATTORNEY GENERAL

I. FIRE SCENE EXAMINATION: CONSTITUTIONAL REQUIREMENTS

A. Background: As a result of the United States Supreme Court's decision in Michigan v. Tyler-Tompkins, 438 U.S. 499 (1978), the rules regarding searches of fire scenes have changed significantly, thus placing additional requirements on fire and police personnel. As a general rule, these requirements must be met in order to ensure the admissibility at a subsequent criminal prosecution of evidence obtained at the fire scene. It should be kept in mind however, that these expanded requirements do not in any way impact upon the ability of fire-fighting personnel to go anywhere at a fire scene to ensure that the fire is extinguished or to prevent casualties. Once the fire-fighting personnel are on the premises for such purposes, they may remain there without any kind of warrant for the time required to accomplish those purposes and for a reasonable period of time thereafter to determine the cause of the fire. Any evidence of crime discovered and samples obtained during that period of time will be later admissible into evidence at a criminal trial. However, if the fire officials remain at the scene to investigate for longer than a reasonable period of time, or depart from the scene and return at a later time for further investigation, then absent extraordinary circumstances, a warrant, or proper consent to search, the evidence or samples seized stand a much greater chance of being suppressed. Unfortunately, the Supreme Court did not define its phrase "reasonable period of time" in terms of a specific number of hours or days; however, it did specifically hold in Tyler that the investigator's return to the fire scene approximately four and then five hours later for further examination was merely a continuation of the initial presence of the fire department and thus permissible even without consent or a warrant. The Court noted that the initial investigation at the time the fire was being fought was significantly hampered by poor visibility resulting from the heat, steam, and early morning darkness. However, the Court held to the contrary regarding subsequent visits on the fourth, seventh, and twenty-fifth day following the fire. Thus, it appears that two rules of thumb can be drawn from the Tyler decision: First, a warrant should be obtained in every situation where the fire investigators want to remain at a fire scene longer than four hours after the fire is extinguished; secondly, a warrant should be obtained whenever the fire-fighting personnel have departed from the area and the investigative personnel desire to return at a later time, unless, as in the facts of Tyler, the subsequent return will be less than four to five hours later and the initial scene investigation was significantly hampered by the weather, darkness, the fire itself, or possible non-availability of trained personnel.

There is, of course, a method legally to avoid the considerations just discussed as in every case involving search and seizure; that method is to obtain the consent of the owner or occupant of the building to search. If proper consent is obtained, then the investigators need not obtain any kind of warrant to search the fire scene during the time period authorized by the consent. However, there are still several important considerations to keep in mind. The

investigator should be absolutely sure to obtain the consent to search from the proper person. For example, if the investigator desires to examine one bedroom of a multi-bedroom apartment leased to a group of students, but mistakenly obtains consent from the wrong student, then the fruits of that search will probably be inadmissible at a subsequent criminal trial of the individual whose apartment was searched. The cardinal rule in this area is for the investigator to be sure that the proper person with the expectation of privacy in the area to be searched is asked for consent. A sample CONSENT TO SEARCH form is attached as enclosure 1. If in doubt, the best advice is to get a warrant.

At this point, it would be appropriate to discuss the two types of warrant procedures the Supreme Court established in Tyler. The Court recognized the logical difficulty of requiring a traditional warrant for searches and seizures at every stage of every case involving a fire scene examination. Traditional warrants require the authorities to demonstrate (based on known facts) that it is more probable than not that a crime has been committed and that evidence of the crime will be located within the premises. Practically speaking, the investigative personnel will many times have no way of meeting the probable cause test (that the fire was probable intentionally set and that evidence showing the fire's incendiary origin will probably be found at the location to be searched) at least until they are actually inside the premises examining the debris and possibly not until samples have been taken and analyzed by a laboratory. The Supreme Court resolved this dilemma by adopting the administrative warrant concept commonly employed in the building health code, and labor safety inspection cases. In this area, the Supreme Court has only required an administrative warrant (absent the consent of the occupant of the premises) based on an evidentiary showing significantly less demanding than the probable cause test. Such an administrative warrant should be based on a showing that a fire has occurred, an adequate investigation into the case has not yet been completed, and a number of other factors tending to show that the proposed entry is reasonable (including, among others, the time of day, the number of prior entries, and the lapse of time since the fire). It should be remembered at all times that this reduced administrative warrant standard is only applicable where there is not probable cause to believe the fire was of incendiary origin. Once the investigator has probable cause to believe the particular fire was intentionally set, then any subsequent re-entry to search for and seize evidence must be based on a traditionally obtained criminal search warrant.

B. Administrative Inspection Warrant Procedure: As discussed above, the Court has indicated that an evidentiary standard less demanding than probable cause is sufficient to justify issuance of a warrant for such administrative inspections. This reduced standard does not require showing that a crime has probably been committed or that evidence of a crime is probably located within the premises, but rather that the proposed search will be reasonable and not an unnecessary disruption or intrusion violating the occupant's reasonable right of privacy. All of the following information which is

applicable should be included in the affidavit to support the application for an administrative warrant:

- (1) That a fire has occurred AND
- (2) That the inspection is reasonable to determine the cause and origin of the fire AND
- (3) That the inspection will/will not disrupt the activities of the occupant AND
- (4) That there were/were no prior entries (include number and times) AND
- (5) That the inspection will encompass a specified area AND
- (6) That the inspection will be made on or about a certain time of day AND
- (7) That the inspection is to be made _____ hours/days after the fire or last inspection AND
- (8) Whether the premises continue to be used AND
- (9) Whether an injuries/deaths occurred AND
- (10) Whether the owner has secured the premises against intruders AND
- (11) Whether the owner/occupant has been approached for consent to inspect

A SAMPLE AFFIDAVIT AND ADMINISTRATIVE INSPECTION WARRANT IS ATTACHED AS ENCLOSURE 2.

C. Criminal Search Warrant Procedure: Once the investigator has probable cause to believe an incendiary crime has been committed, any subsequent entry to search for evidence must be made pursuant to a criminal search warrant issued upon a traditional showing of probable cause. The affidavit prepared to support the criminal search warrant application should contain information relating to all of the following which are applicable:

- (1) Burn indicators or patterns.
- (2) Out of place objects, such as, bank or finance records, open file draws, etc....
- (3) Noticeable fire accelerants.
- (4) Signs of forced entry.
- (5) Technical analysis at fire scene.

(6) Recent removal of furniture, equipment, fixtures, or salvageable building materials.

(7) Statements from firefighters or occupants concerning the nature/spread of the fire.

(8) Cause and origin of fire, if determined.

(9) Informant testimony (must show reliability).

(10) Any attempts to cover-up other criminal activity.

A SAMPLE AFFIDAVIT AND CRIMINAL SEARCH WARRANT IS ATTACHED AS ENCLOSURE 3.

D. Conclusion: In summary, there are essentially five situations in which firefighters and investigators may constitutionally inspect or search fire-damaged premises to produce evidence of cause and origin admissible at a criminal trial.

(1) Inspection of a building without a warrant or consent prior to the point the fire is extinguished; firefighting personnel are legitimately on the premises to extinguish the fire and may inspect same during this time period.

(2) Administrative inspection of the premises immediately following the point in time the fire is extinguished; this is accomplished as an official duty to determine cause/origin of the fire. Such an inspection may be conducted within and during a reasonable period of time thereafter (not to exceed four hours) without a warrant or consent.

(3) Administrative inspection, or search, authorized at any time by consent of an individual having a possessory interest in the location or items to be examined; such consent must be voluntarily given, and in writing if possible.

(4) Inspection pursuant to an administrative inspection warrant issued upon an evidentiary showing much less rigorous than the traditional probable cause standard. It is advisable to obtain such a warrant whenever the investigator desires to remain or return to the fire scene more than four (4) hours after the fire is extinguished. Such a warrant is inappropriate once the investigator determines there is probable cause to believe the fire was intentionally set.

(5) Search pursuant to a criminal search warrant once the investigator assembles sufficient evidence to satisfy the standard probable cause requirement.

If there is any doubt as how a particular situation should be handled, the most appropriate course of action is to request legal advice from the Arson Unit of the Attorney General's Department. The Arson Unit may be reached at 274-4400 during normal working hours, or via 277-2335 (State Fire Marshall's Office) during non-working hours.

DATE _____
TIME _____
PLACE _____

Consent to Search

I, _____, having been informed of my right not to have a search made of the premises and/or vehicle described below without a search warrant and of my right to refuse to consent to such a search, do authorize _____, of the _____ Police Department to conduct a complete search of my premises and/or vehicle described as _____.
I give my consent to this search knowing that if any incriminating evidence is found it can be used against me in Court.

The police officer(s) named above has my permission to take any letters, papers, or other property from my premises and/or vehicle.

I give this written permission to the police officer(s) named above voluntarily and without threats or promises of any kind.

Signed _____

Witnesses: _____

Enclosure 1

ADMINISTRATIVE WARRANT

SCENARIO #1

At 2:12 a.m. on February 6, 1980, during the height of a raging snowstorm, a box alarm was received for a fire at the Ajax Clothing Store located in a shopping complex at the corner of 16 Thacher and 234 Greene Street, Providence, RI.

Responding apparatus found the building heavily charged with smoke and had to make a forcible entry into the building to extinguish the fire which was located and confined to a records storage area to the rear of the establishment. The fire was extinguished at 3:17 a.m. same date. Most of the office was destroyed with resulting heat, water and smoke damage to the remainder of the store. The Fire Chief conferred with the first police officer who arrived on the scene just prior to the apparatus and he stated he found the building secured.

Due to the intense weather conditions, including temperatures well below freezing, an investigation into the cause and origin could not be conducted; investigators were unavailable to examine the fire scene until February 9, 1980, at the earliest.

The building is owned by Q. T. Realty, a RI General Partnership, William Schaffer and Daniel Quick general partners. Mr. Quick was asked to sign a Consent To Search Form at that time and refused. There have been no previous entries to search the aforementioned premises which have been secured from intrusion

Enclosure 2

ADMINISTRATIVE WARRANT

from the date of the fire. There have been no visible efforts to clean or restore the premises.

**State of Rhode Island and Providence Plantations
Complaint To Search and Seize Property/or Person**

TO The Honorable James P. Willows Justice of the Supreme, Superior Court,
or Judge of the District Court of the State of Rhode Island

a) Donald F. Blunt Chief, ~~Police Dept~~ Providence Police Dept, ~~Member of the District of the State of Rhode Island~~

b) ~~Complainant who is responsible to enforce a person who has a right to possession of the property stolen, embezzled, or obtained by fraud or other means~~

ON OATH COMPLAINS THAT:

(1) ~~Certain property, recently fire damaged, is subject to inspection to determine the cause and origin of said fire;~~

(2) ~~Certain property, recently fire damaged, is subject to inspection to determine the cause and origin of said fire;~~

(3) ~~Certain property, recently fire damaged, is subject to inspection to determine the cause and origin of said fire;~~

(4) Certain property, recently fire damaged, be subject to inspection to determine the cause and origin of said fire;
and prays that a warrant to search for and seize said property/~~person~~ be issued ~~and if the same be subject to seizure, that the property be seized.~~

The ~~person~~ property or articles to be searched for and/or seized is described as follows:

Miscellaneous articles/debris incidental to said fire.

The name of the owner ~~or keeper~~ thereof (if known) is:

Q. T. Realty, a Rhode Island General Partnership, William Schaller and Daniel Quick general partners.

The place ~~or person~~ to be searched is described as follows:

Ajax Clothing Store, a one story brick frame structure, located at the corner of 16 Thacher Street/234 Greene Street, Assessors Plat 31 Lot 483, in Providence, RI; it's contents and adjoining areas owned by the aforementioned parties.

Your complainant ~~prays that said warrant may be issued in the right time for the reason that:~~

Subscribed and sworn to before me:

February 10, 1980
Date

// Signed WILLIWS
Judge/Justice

// Signed BLUNT
Complainant

Enclosure 2-1

AFFIDAVIT

Your affiant upon oath states that he has reason to believe and does believe that grounds for such warrant exist and states the following facts on which such belief is founded on the following affidavit.

At 2:12 a.m., February 6, 1980, members of the Providence Fire Dept responded to a fire at the Ajax Clothing Store located at the corners of 16 Thacher Street and 234 Greene Street, in the City of Providence. The fire was extinguished at 3:17 a.m. same date. Due to extremely inclement weather, an adequate investigation into the cause and origin of the fire was not possible at that time.

On February 9, 1980, I contacted Mr. Daniel Quick, a partner in the store, to request his consent to search the fire damaged premises. Mr. Quick refused to give consent to search.

The search is necessary to determine the cause and origin of said fire. There have been no previous entries to search the aforementioned premises which have been secured from intrusion from 3:17 a.m., February 6, 1980, up to the present time. There have been no visible efforts to clean or restore said premises. The search will be conducted on or about 10:00 a.m., February 11, 1980; and will encompass only the fire damaged and surrounding areas owned by Q.T. Realty. Since the building is presently unusable/uninhabitable, there will be no unreasonable interruption of the occupant's activities. There were no injuries or deaths in this fire incident.

February 9, 1980
 Date
 Providence, Sc. In Providence this
 9th day of February, 19 80, before me personally came
 Detective Frank Smith, Providence Police Dept. and made oath to the truth of the foregoing.

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 Judge of the District Court
 Signed Willows
 Judge of the District Court

Search Warrant

State Ex rel	City/Town Providence	County Providence
vs Respondent	Q. T. Realty dba Ajax Clothing Store 46 Thacher Street Providence, RI	TO: An Officer authorized by law to execute the within warrant,

of Chief Blunt, Providence PD; and affidavit of Detective Smith, Providence PD.
 Complaint ~~has been~~ having been made to me under oath, and as I am satisfied that there is probable cause for the belief therein set forth that grounds for issuing a search warrant exist, you are hereby commanded diligently to search the place or person herein described for the property specified and to bring such property or articles, and to summon the owner, or keeper thereof, if any be named in the complaint, if to be found by you, to appear before the District Court in the district where such property shall have been seized, namely the 6th Division of the District Court of Rhode Island.

Place ~~to be~~ to be searched:

Ajax Clothing Store, a one story brick frame structure, located at the corner of 16 Thacher Street/234 Greene Street, assessors Plat 31 Lot 483, in Providence, RI; it's contents and adjoining areas owned by the aforementioned parties.

Property or articles to be searched for:

Miscellaneous articles/debris incidental to said fire for analysis to determine cause of fire.

Name of owner, or keeper, thereof if known to complainant:

Q. T. Realty, a Rhode Island General Partnership, William Schaller and Daniel Quick general partners.

Said warrant shall be served in the daytime — ~~may be served at any time~~ — within seven (7) days from the issuance hereof, AND IF NOT SERVED WITHIN SAID TIME TO BE RETURNED FORTHWITH TO A JUDGE SITTING IN THE ABOVE NAMED COURT.

Property seized by you hereunder shall be safely kept by you under the direction of the Court so long as may be necessary for the purpose of being used as evidence in any case. As soon as may be thereafter, if the same be subject to forfeiture, such further proceedings shall be had thereon for forfeiture as is prescribed by law.

Hereof fail not and MAKE TRUE RETURN PROMPTLY OF THIS WARRANT TO A JUDGE THERE SITTING with your doings thereon, accompanied by a written inventory of any property taken to a judge sitting in the above named court.

Issued at Providence in the county of Providence this
 10th day of February, A. D. 19 80.

/// Signed Willows
 Judge of the District Court
~~Judge of the District Court~~

ACKNOWLEDGMENT OF RETURN

Warrant received on day of , 19 , from
 at

RETURN OF SERVICE

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Providence

, Sr.

At 16 Thacher Street and 234 Greene Street, Providence, RI February 11, 1980
(place) (date)

A. D. 1980, pursuant to the within warrant I have made search during the daytime — ~~since the nighting~~ — as commanded and submit herewith a written inventory of property taken:

1. Nine (9) samples of debris.
2. One (1) 5 gallon can containing residue of a suspected petroleum product.

~~There also summoned~~
~~to appear before the~~ Division of the
~~Providence County~~ at 9:30 a.m. in the forenoon
on A.D. 1980

I have also given to Mr. Daniel Quick
the person from whose premises said property was taken — a copy of the within warrant — I have left a
copy of the within warrant at on the place from which said property was taken. I did not find the person from whose
premises said property was taken but left a copy of said warrant at on the place from which the property was taken.

// Signed Detective Smith
Authorized Officer

CRIMINAL WARRANT

SCENARIO #2

As a result of the administrative inspection conducted on February 11, 1980, nine (9) debris samples and a five (5) gallon can were obtained from various different locations within the fire scene. The samples and can were submitted under proper chain of custody to the State Crime Lab for analysis. Four (4) of the nine (9) samples were found to contain a volatile substance similar to gasoline. The same determination was made regarding the liquid residue found in the five gallon can. A full fingerprint and a partial fingerprint were obtained from the five gallon can and were tentatively matched to a set of fingerprints of William Schaller (one of the store owners/general partners) on file with the RISP. During the administrative inspection, it was observed that all of the business office file cabinets had most, if not all, of their file drawers pulled out, with substantial fire, smoke, and water damage to the contents of those open drawers. There was no sign of forced entry to the building observed by either police or fire authorities.

The Providence Police Department desires to examine the fire scene further to eliminate all other possible causes of accidental fire, including malfunctioning electrical wiring, heating equipment, and/or careless use of smoking materials among others. The fire is classified at this point as of probable incendiary origin. The Providence Police plan at the present time to initiate formal investigation into the fire with a focus on the owners/general partners of Ajax Clothing Store, William Schaller and Daniel Quick.

Enclosure 3

State of Rhode Island and Providence Plantations
Complaint To Search and Seize Property/or Person

TO The Honorable James P. Willows Justice of the Supreme, Superior Court,
or Judge of the District Court of the State of Rhode Island

a) Donald E. Blunt Chief, ~~Deputy Chief~~ Captain, of Police,
~~Sheriff, Deputy Sheriff of Providence Police Dept., Member of the Division of the State Police~~

b) ~~I am authorized by law to bring complaints for violation of the law which it is my responsibility to enforce/a person who has a right to possession of the property stolen, embezzled, or obtained by false pretenses or promises~~

ON OATH COMPLAINS THAT:

(1) ~~Certain property has been stolen or embezzled or obtained by false pretenses or promises or by force or threat or by fraud or by any other means prohibited by law and is now in the possession of the person named in this complaint.~~

(2) ~~Certain property has been kept, suffered to be kept, concealed, deposited or otherwise in violation of law for the purpose of violating the law.~~

(3) ~~Certain property has been damaged or destroyed or otherwise in violation of law and is now in the possession of the person named in this complaint.~~

(4) Certain premises, and items therein, recently fire damaged, require further examination to determine fire cause and origin, and business records as evidence of a crime, located therein. and prays that a warrant to search for and seize said property/person be issued and if the same be subject to forfeiture, that the property be forfeited.

The person/property or articles to be searched for and/or seized is described as follows:

Miscellaneous articles/debris incidental to said fire, to include electrical wiring, fixtures, and service panels; the buildings heating equipment for possible sources of ignition; and all business records contained in the four file cabinets.

The name of the owner or keeper, thereof (if known) is:

Q.T. Realty, a Rhode Island General Partnership, William Schaller and Daniel Quick general partners.

The place or person to be searched is described as follows:

Ajax Clothing Store, a one story brick frame structure, located at the corner of 16 Thacher Street/234 Greene Street, Assessors Plat 31 Lot 483, in Providence, RI; it's contents and adjoining areas owned by the aforementioned parties.

Your complainant prays that said warrant be issued for the reasons that:

that:

Subscribed and sworn to before me:

February 15, 1980

Date

// Signed Willows

Judge/Justice

// Signed Blunt

Complainant

Enclosure 3-1

AFFIDAVIT

Your affiant upon oath states that he has reason to believe and does believe that grounds for such warrant exist and states the following facts on which such belief is founded on the following affidavit.

At 2:12 a.m., February 6, 1980, units of the Providence Fire Dept responded to a fire at the Ajax Clothing Store located at the corners of 16 Thacher Street and 234 Greene Street in the City of Providence. The bulk of the actual fire damage was confined to the office and records area to the rear of the store. The fire was extinguished at 3:17 a.m. on the same date. Due to extremely harsh weather conditions (snowstorm with air temperature at approximately 20°F) combined with the lack of illumination, an adequate scene examination was not possible at that time.

On February 9, 1980, I contacted Mr. Daniel Quick, a general partner in the store ownership, to request his consent to search the fire-damaged premises. Consent was refused. Trained investigators were not available to examine the fire scene until that date.

An administrative inspection warrant was sought and obtained on February 10, 1980, to return to the fire scene to determine cause and origin of the fire. The premises were examined beginning at 10:00 a.m. on February 11, 1980. The building has been secured from the point of the fire to the present time; it is presently unusable due to the severe fire damage.

During the administrative inspection, nine (9) samples from various locations within the premises and a five (5) gallon can with liquid residue were obtained and submitted under proper chain of custody to the URI Crime Laboratory for analysis. Four of the nine samples and the residue from the can were found to contain a volatile compound similar to gasoline. Those four samples and the can were obtained in the general area of the business office. A full fingerprint and a partial fingerprint obtained from the can were matched to a set of prints of William Schaller (one of the store's general partners) on file with the RISP. There also appears to be two distinct points of origin.

During the administrative inspection on February 11, 1980, I observed no signs of forced entry to the building. I also observed that the four file cabinets in the store's business office had most, if not all, of their file drawers pulled out, with substantial damage done to the contents. Informal discussions with several of the store's creditors showed significant debts well past due.

The Providence Police desire to examine the electrical wiring, fixtures, and service panel; and the building's heating equipment for ignition sources and seize remnants of business records located therein.

Date February 15, 1980

Affiant // Signed Det Smith

Providence, Sc.

In Providence this

15th day of February, 1980

Detective Frank Smith, Providence Police Dept made oath to the truth of the foregoing.

// Signed Willows

Judge of the District Court

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Search Warrant

State Ex rel	City/Town Providence	County Providence
vs Respondent:	Q. T. Realty dba Ajax Clothing Store 46 Thacher Street Providence, Rhode Island	TO: An Officer authorized by law to execute the within warrant,

of Chief Blunt, Providence PD; and affidavit of Detective Smith, same.

Complaint ~~and return~~ having been made to me under oath, and as I am satisfied that there is probable cause for the belief therein set forth that grounds for issuing a search warrant exist, you are hereby commanded diligently to search the place or person herein described for the property specified and to bring such property or articles, and to summon the owner, or keeper thereof, if any be named in the complaint, if to be found by you, to appear before the District Court in the district where such property shall have been seized, namely the 6th Division of the District Court of Rhode Island.

Place of person to be searched:

Ajax Clothing Store, a one story brick frame structure, located at the corner of 16 Thatcher Street/234 Greene Street, Assessors Plat 31 Lot 483; in Providence, RI; it's contents and adjoining areas owned by the aforementioned parties.

Property or articles to be searched for; examined and/or seized:

Miscellaneous articles/debris incidental to said fire for analysis to determine cause of fire, to include but not limited to, the electrical wiring, fixtures, and service panel, heating equipment, and 4 file cabinets located in the business office containing partially destroyed business records.

Name of owner, or keeper, thereof if known to complainant:

Q. T. Realty, a Rhode Island General Partnership, William Schaller and Daniel Quick general partners.

Said warrant shall be served in the daytime — ~~may be served in the nighttime~~ — within seven (7) days from the issuance hereof, AND IF NOT SERVED WITHIN SAID TIME TO BE RETURNED FORTHWITH TO A JUDGE SITTING IN THE ABOVE NAMED COURT.

Property seized by you hereunder shall be safely kept by you under the direction of the Court so long as may be necessary for the purpose of being used as evidence in any case. As soon as may be thereafter, if the same be subject to forfeiture, such further proceedings shall be had thereon for forfeiture as is prescribed by law.

Hereof fail not and MAKE TRUE RETURN PROMPTLY OF THIS WARRANT TO A JUDGE THERE SITTING with your doings thereon, accompanied by a written inventory of any property taken to a judge sitting in the above named court.

Issued at Providence in the county of Providence this

15th day of February, A. D. 1980

...//...Signed Willows

Judge of the District Court
District of Columbia

ACKNOWLEDGMENT OF RETURN

Warrant received on day of, 19...., from

at

RETURN OF SERVICE

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Providence....., Sr.

At 16 Thacher Street and 234 Greene Street, Prov., RI February 15
(place) (date)

A. D. 19...80..., pursuant to the within warrant I have made search during the daytime — ~~during the nighttime~~ — as commanded and submit herewith a written inventory of property taken:

Seized seven (7) boxes of business records from the 4 file cabinets located in Ajax Clothing Store, 16 Thacher Street and 234 Greene Street, Providence, RI.

I have discussed
 names for which compliance is recommended or applied before the Division of the
 Internal Control Act at 9:30 o'clock in the forenoon,
 OK WDC:NSX

I have also given to ~~Mr. Daniel Quick~~ the person from whom — from whose premises said property was taken — a copy of the within warrant — ~~I have left a copy of the within warrant at — on the place from which said property was taken — I did not find the person from whose premises said property was taken but left a copy of said warrant at — on the place from which the property was taken.~~

.....// Signed Det. Smith
Authorized Officer

II. EVIDENCE COLLECTION PROCEDURES

1. The best initial recommendation in this area is that if the fire is not clearly accidental in origin, the clean-up salvage process should not begin until the fire scene investigators have completed their scene examination. From the investigator's point of view, there are several things to keep in mind:

A. Recognition of Point of Origin: The fire investigator must locate all points of origin of the fire. Only samples obtained from these areas will contain suitable residues or other evidence.

B. Documentation: Drawings to approximate scale of the fire scene should be prepared to show all points of origin, all trailers, and the relative positions from which all samples were obtained not only to themselves but to the entire fire scene. [It is also advisable to record the names of all witnesses to the determination of the point(s) of origin and to the sample collection process.] Likewise, photographs should be taken of all points of origin, trailer locations, and locations from where samples were taken. In terms of jury appeal, it is helpful to have photographs depicting the areas of major damage to the building, or what is left of it.

1. When taking close-ups of specific objects or areas, include an easily recognized object of commonly known proportions as a size reference.

2. It is not necessary to preserve a chain of custody with photographs. All film exposures taken should be developed, and ultimately printed, unless equipment malfunction or photographer error results in no print image whatsoever. Admissibility of photographs at trial depends solely on the photographer (or other individual familiar with the fire scene at the time the pictures were taken) stating essentially that the photographs offered into evidence are fair and accurate representations of the objects and/or locations they appear to depict. Notes should also be kept (preferably on the sketches of the scene) of the specific locations from which the photographs were taken.

C. Sample collection: When samples are obtained at a fire scene for lab analysis steps should be taken to prevent any volatile compounds in the material from escaping. Therefore, the containers used should be airtight when closed, and should not

permit the passage of the vapor through the container walls. In addition, the container itself, and its lining, should be non-reactive with whatever may be present in the sample.

1. The following types of containers are preferred:

(a) clean, unused, metal paint cans; the cans should not be lined with any substance not varnished. When the can lids are firmly in place, the container is virtually airtight and unbreakable.

(b) clean, screw-top glass jars, with enamel lids and rubber seals (similar to baby food and new-style mason jars). Screw caps with glued-in paper liners are not appropriate since the adhesive can generate its own vapors. Metal cans are preferred since the glass jars are subject to breakage.

(c) Polyethylene bottles with airtight, screw tops lids are acceptable (polyethylene is flexible and has a milky appearance).

(d) Polyester bags are acceptable for packaging of large pieces of evidence, such as chunks of flooring, doors and paneling, and for incendiary devices used to time the ignition of the fire, if the items are too large for a metal or glass container. Polyester bags are much less permeable than any other type of commonly available plastic bag. If polyester bag is used in the above situation, then the open end must be sealed with either heat or clear adhesive tape. It should be noted that finger prints should be taken, if appropriate, before these types of items are packaged.

2. The following types of containers are not recommended where the evidence sample is going to be examined for presence of liquid accelerants or for background information:

(a) polyethylene bags

(b) Polystyrene bottles (brittle with a clear appearance)

(c) paper bags

(d) screw top glass jars without any positive sealing device inside the lid, or simply with a glued-in paper liner

3. When retrieving samples, the use of a portable hydrocarbon

detector is recommended to help locate debris still containing an accelerant. Once the decision is made to take samples, it should be noted that generally small quantities of material (1-2 ounces of liquid and not more than 16 ounces of solid debris) are preferred. Unless the integrity of larger objects (e.g., flooring, paneling, doors, door and window casings) is essential for proper analysis (e.g., tool marks, fingerprints), they may be broken into smaller pieces for ease of packaging and shipping as soon as they are adequately photographed.

4. It should be noted that the investigator may for convenience collect evidence at the scene in labeled plastic bags and then transfer each collection bag (with contents) into a new unlined paint can or other suitable airtight container. This practice is especially useful when the sample is wet. A note should appear on the transmittal letter to alert the laboratory personnel as to this type of packaging.

5. When electrical equipment is being examined for possible sources of ignition, it might be necessary to retrieve all or part of the suspect equipment for laboratory analysis. Consideration should be given to obtaining the electrical distribution boxes for the fire-involved circuits. If that is considered necessary, all connecting wiring should be cut 12-18 inches outside the box so that no internal part or wiring is disturbed. Wall switches, outlets, and associated wiring may also require laboratory inspection, since loose connections can produce ignition temperatures at current flows well below the rated capacity of the circuit. The entire switch and/or outlet should be obtained intact with 12-18 inches. Attention should be given to whether or not the actual conductors within the associated wiring show the varying degrees of heat discoloration since such non-uniform discoloration helps to establish a cause of ignition other than by short circuit, all wiring to show discoloration should be obtained and submitted along with the related electrical fixtures noted above.

F. Evidence Chain of Custody: The most important consideration in this phase of preparing an incendiary crime case for court, is the preservation by the investigator and the laboratory of the provable identity of the evidentiary samples. This is known simply as "chain of custody". The requirement to preserve the provable identity of the evidentiary sample begins at the point the sample is obtained at the fire scene and continues until it is marked as an exhibit for identification in open court. It should be noted, however, that the concept of "chain of custody" is not required where the evidence is identifiable as a unique item, i.e., where the evidence may be positively identified at trial by the individual who seized it due to its unique characteristics. However, where the seized evidence is easily interchangeable with all representatives of that class (e.g., a three ounce bag of marijuana, or an arson debris sample) then the prosecution must be able to prove by a perfected chain of custody that the sample before the Court is in fact what was seized at the fire scene.

The chain of custody rules are as follows:

1. Clean up and salvage operations should not begin at the fire scene until the site examination is complete.
2. If possible, only one individual should be responsible for collecting and handling fire scene evidence.
3. Fire scene examination and sample collection should begin as soon as possible in order to avoid search and seizure issues (see search and seizure pamphlet) and to prevent the debris from being disturbed or altered by human or natural elements; however, once sample collection is underway, the process should be done in a very methodical and deliberate fashion.
4. Samples should be collected, and packaged, and labeled one at a time.
5. Once a sample suspected to contain a liquid accelerant is placed in a container, the container top should be firmly fastened in order to make it as airtight as possible. As soon as any sample is packaged, it should be labeled with the following information:
 - (a) name and badge number
 - (b) time, date, and location of seizure
 - (c) contents
 - (d) any other identifying information as to contents and location (e.g., "control sample of surrounding rug material")
6. Once the sample is packaged in a container, the container should be sealed in such a manner that the container cannot be opened unless the seal is broken. Any kind of wax impression or adhesive label that cannot be removed without being clearly damaged is appropriate. The sealing device should be attached across the lid to the side of the container. The signature (or fingerprint in the case of wax seal) of the individual collecting the sample should be placed on the sealing device.
7. When the scene examination is completed, and all samples are obtained, packaged, and sealed, they should remain in the custody of the officer initially gathering them until they are transmitted for analysis. If circumstances dictate a delay in the transmittal of the evidence and the officer cannot maintain personal, physical possession of the samples, then the samples should be surrendered to an evidence custodian within the department concerned and maintained under lock and key subject to access only by limited authorized

personnel. (See section below dealing with storage.) Whenever evidence samples are transferred to any person, including the department evidence custodian for storage, or the laboratory for analysis, the individuals surrendering and receiving the items should complete and sign the appropriate sections of a chain of custody sheet showing the persons transferring and receiving possession of each item of evidence. (See Appendix 1 for sample of chain of custody form.) This chain of custody and evidence locker procedure should be followed likewise when the evidence is retrieved from the laboratory, stored, and then produced for trial.

G. Evidence Transmittals: In addition to the chain of custody procedure discussed above, it is also strongly recommended that the following procedures be utilized in forwarding evidence samples to the laboratory:

1. All samples should be hand-delivered to the Crime Laboratory at the University of Rhode Island, and preferably delivered by the individual who initially obtained the samples from the fire scene. This procedure allows the analyst to discuss the investigator's observations and impressions of the fire scene and helps to ensure that any glass containers used will not be broken.

2. The samples must be accompanied by a typed and signed letter of transmittal which includes the following:

- (a) date, time, nature, and location of incident

- (b) incident or case number

- (c) type of examination requested (e.g., detection of liquid accelerant residues, tool make examination)

- (d) brief summary of the investigator's observations, and circumstances of the fire (e.g., an odors noticed, unusual color or density of smoke, or any accelerants normally present at fire scene, e.g., body shop). This will help the analyst to narrow the field of inquiry.

- (e) date results needed by, if appropriate

- (f) name, address, and telephone number of submitting investigator [See sample letter of transmittal in Appendix 2]

3. Once the samples are analyzed at the laboratory, they must be retrieved and stored by the investigative agency that originally submitted them. It is recommended that if possible the same officer who delivered the samples also be the same individual to retrieve them. It should be noted that the above discussion regarding physical custody of evidence samples is presented in order to minimize the number of

people handling them. A defense challenge to an evidentiary chain of custody generally requires the prosecution to produce, as witnesses, all the individuals who handled the items.

H. Evidence Storage: Whenever evidence samples are not physically in the possession and sight of any one person, they should be secured in a permanent evidence storage locker or room under lock and key both before and after lab analysis, up until trial and then after trial until any conviction obtained has become final (i.e., appellate review has been exhausted).

1. Access to the evidence storage facility should be limited to a smaller number of specifically authorized personnel as evidence custodians.

2. Every time evidence is either received or removed from the storage area, the next transfer/receipt block on the chain of custody sheet should be completed and the sheet physically maintained with the item.

3. In addition, an official record should be maintained in logbook form by the evidence custodian(s) showing the following information for all receipts and removals of evidence from the facility:

- (a) time and date of each transfer

- (b) name and indentifying number of case

- (c) printed name and signature of person transferring and person receiving item

- (d) description of items involved

I. Lab Report Format: The Crime Lab will report the results of its scientific examination in the report format demonstrated in Appendix 3. Analysis normally takes two weeks. If results are needed sooner than that, the lab should be informed of that special request at the time the samples are delivered for examination. It is the responsibility of the agency requesting the analysis to maintain contact with the laboratory to determine when the evidence and lab report are ready for pick-up. As soon as the report is ready, the requesting agency should arrange to retrieve the samples and re-submit them to the department evidence custodian for storage. The retrieval should preferably be handled by the same officer who initially seized and transported the samples to the laboratory.

CRIME SCENE SEARCH
EVIDENCE REPORT

Name of Subject.....
Offense.....
Date of Incident.....Time.....AM-PM
Search Officer.....
Evidence Description.....
.....
Location.....
.....

CHAIN OF POSSESSION

Received From.....
By.....
Date.....Time.....AM-PM
Received From.....
By.....
Date.....Time.....AM-PM
Received From.....
By.....
Date.....Time.....AM-PM

Appendix 1

Department Letterhead

To: Laboratory for Scientific Criminal Investigation
Fogarty Hall, University of Rhode Island
Kingston, R.I. 02811

Submitted by: _____

Subject: Request for technical examination of evidence
obtained at residence fire, King Street,
Providence, R.I.

1. Description of Incident:

On July 12 a fire occurred at the Jones residence, 851 King Street. Trailers were found leading from the kitchen through the living room to the bedrooms.

At this time, two points of origin have been found. One was located on the kitchen floor. A white residue was found and a chemical incendiary is suspected.

The second point of origin was located in the living room. What appeared to be a timer was plugged into the wall and to a container.

Entry was apparently made through forcing the door or breaking a window. Toolmarks were found on the door handle.

2. Requests for Analysis:

1. Please examine Items 2,3,4,9, and 10 for accelerants.
2. Please identify Item 1.
3. Please compare marks on Item 5 with Item 11 (tool).
4. Please examine suspects clothing (Items 9,10 and 14) for glass and compare with Item 6.
7. Please compare Item 7 with Item 9.
8. Please compare Item 12 with Item 13.
9. Please identify Item 8.

3. Evidence Submitted:

1. Suspected timer and wires.
2. Trailers from living room.
3. Sample of sofa cushion.
4. Control sample for Item 3.
5. Rear door doorknob.

Appendix 2

6. Glass from window near rear door.
7. Piece of cloth found in window glass.
8. Suspected chemical residue from kitchen.
9. Suspect's shirt.
10. Suspect's pants
11. Tool taken from suspect.
12. Cigarettes taken from suspect.
13. Cigarette butt found outside rear door.
14. Suspect's shoes.

4. Date(s) Evidence Obtained:

All items of evidence forwarded were obtained July 12.

5. Please notify the undersigned when the examination(s) are completed. My business telephone is (401) 555-4567.

State Crime Lab
Fogarty Hall
University of Rhode Island
Kingston, RI 02881

Arson Analysis Report Form

Lab Case # _____

Date of Report _____

Evidence Submitted by: _____

Department: _____

Case No: _____

Name: _____

Number of Exhibits Submitted: _____

Type of Examination Performed: _____

Exhibits

- _____ Flammability
- _____ Infrared Spectrometric Analysis
- _____ Gas Chromatographic Analysis
- _____ Elemental Analysis
- _____ Other (specific) _____

Results of Examination: _____

Exhibits

- _____ Flammable present
- _____ Volatile present
- _____ No Flammable or Volatile Detectable

The sample contained components the same as or similar to those found in the following: _____

Exhibits

- _____ Gasoline
- _____ Paint Thinner
- _____ Fuel Oil
- _____ Petroleum Residue
- _____ Other (specify) _____

Comments: _____

Examination performed by: _____



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APPENDIX E

New Jersey Supplementary NFIRS Form





**STATE OF NEW JERSEY
INCENDIARY/SUSPICIOUS REPORT**
(Fill in this report in your own words)

FD Name	
Address	Zip Code
Telephone	

5	FD ID	Incident Number	Exp.	Mo.	Day	Year	Day of Week	Alarm Time
---	-------	-----------------	------	-----	-----	------	-------------	------------

INVESTIGATIVE INFORMATION				PERSON			
HA	Insurance Company			HR	Name		
HB	Insurance Agency / Agent and Address			HR	Address		
HC	Public Adjuster and or Firm			HS	Telephone	Date of Birth	Social Security Number
HD	Insurance Company Adjuster			HT	Race	Sex	Occupation
HE	Amount of Insurance	Building	Contents	HT	Employed? <input type="checkbox"/> Yes <input type="checkbox"/> No		
HF	Policy Expiration Date			HU	Relationship to Investigation		
HG	Purchase Date of Policy			PERSON			
HH	Date of Last Insurance Increase	Building	Contents	HR	Name		
HI	Mortgagee and Address			HR	Address		
HJ	Arrearage in Taxes <input type="checkbox"/> Yes <input type="checkbox"/> No			HS	Telephone	Date of Birth	Social Security Number
HK	Outstanding Violations			HT	Race	Sex	Occupation
HL	Building	Fire	Health	HT	Employed? <input type="checkbox"/> Yes <input type="checkbox"/> No		
HM	Contents			HU	Relationship to Investigation		
HN	Other Crimes			PERSON			
HO	Other Crimes			HR	Name		
HO	Previous Fire History			HR	Address		
BUSINESS				HS	Telephone	Date of Birth	Social Security Number
HP	Corporation Name and Address			HT	Race	Sex	Occupation
HO	Trade Name and Address			HT	Employed? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Preceding page blank				HU	Relationship to Investigation		
				Officer in Charge (Name — Position — Assignment) Date			
				Member Making Report (If Different From Above) Date			

APPENDIX F

Illinois Operation START Procedures

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OPS 14 OPERATION S.T.A.R.T. (STATEWIDE TACTICAL ARSON RESPONSE TEAMS)

14-1 POLICY

It is the policy of the Department to provide assistance to local law enforcement agencies and fire departments in arson investigation. In recognition of the prevalent need to control the arson problem in Illinois, the Department of Law Enforcement and the Office of the State Fire Marshal shall cooperate to provide effective arson-related services. It is the policy of both agencies to present a joint effort in order to share the expertise of appropriate agency personnel and utilize direct telephone and radio communications on all investigations of suspicious fires.

14-2 PURPOSE

The purpose of this policy is to provide operational and reporting procedures for the Statewide Tactical Arson Response Teams (S.T.A.R.T.).

14-3 OBJECTIVES

The objectives of Operation S.T.A.R.T. are:

- (a) To provide arson investigation services to local fire departments and law enforcement agencies in the most effective manner.
- (b) To reduce the loss of property and lives caused by arson.
- (c) To provide a data base that will target areas of greatest need and permit effective allocation of manpower and equipment for the State of Illinois Arson Control Program.

14-4 ASSIGNMENTS

Only those personnel necessary to complete a given investigation will actually be sent.

- (a) OSFM investigators will do cause and origin determination if local agencies request their assistance.
- (b) Division of Support Services Crime Scene Technicians (CST) will process the evidence and/or conduct a crime scene search at the request of the OSFM or local agencies.
- (c) Division of Criminal Investigation (DCI) Special Agents will conduct the follow-up criminal investigation upon request by a local agency, OSFM, or when initiated by DCI.

14-5 NOTIFICATION PROCEDURES

- (a) The Arson Hotline (800/252-2867) in the State Police Command Center (CC) in Springfield, Ill., is utilized by local agencies as a direct number for reporting suspected arson.
- (b) The State Police District Headquarters wherein the suspicious fire occurred may be contacted direct by a local agency for assistance.
- (c) All notifications of a suspicious fire received in the field by personnel of the OSFM and DLE will be directed to the district headquarters having jurisdiction.

April 1, 1980

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OPS14

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14-6 PROCEDURE FOR COMMAND CENTER TELECOMMUNICATORS FOR CALLS DIRECTLY TO THE ARSON HOTLINE

- (a) Command Center receives and completes a CC arson report form (see page 5 for sample form).
- (b) Command Center transfers call to the District Headquarters having jurisdiction over the location of the fire and obtains a District Arson Report (DAR) number for the CC report.

14-7 PROCEDURE FOR CALLS DIRECTLY TO DISTRICT HEADQUARTERS

- (a) For each incident or location the District will complete a DAR form (see page 6 for sample form) items 1 through 5 and assign a sequential district number (Example: 04-80-001).
- (b) Information will then be requested to determine as to the kind of assistance required by a local agency or provided by OSFM or DLE personnel, and items 6, 7, and 8 of the DAR completed as necessary.

14-8 PROCEDURE FOR NOTIFICATION BY THE DISTRICT TO SPECIFIC PERSONS OF DIVISIONS AS REQUESTED BY LOCAL AGENCIES

- (a) Contact the OSFM investigator assigned to the jurisdiction of the suspicious fire who will then be responsible to respond and make further notifications as necessary.
 - (1) If unable to locate the investigator, contact the OSFM supervisor who will then be responsible for further notifications.
 - (2) See page 7 for State and county map designating the OSFM investigator call priorities; and, page 8 listing OSFM investigators' and supervisors' office and home telephone numbers.
- (b) Contact the closest CST only if unable to determine a response from the OSFM; or, if crime scene search service is specifically requested by the caller.
- (c) Contact the zone duty agent during non-office hours, or the DCI Zone Commander during office hours only if unable to contact personnel indicated in (a) or (b); or, if investigative services are specifically requested by the caller.
- (d) The District will dispatch the nearest trooper to a suspected arson fire in progress when:
 - (1) No immediate response can be made by the OSFM, or;
 - (2) Crime scene protection is requested because local resources are unavailable.
 - (3) The trooper will determine what further assistance is needed and notify District Headquarters.

- (e) State Police District maintains communications with OSFM investigators and DCI zone as needed.
- (f) State Police District relays information and requests for additional personnel (i.e., CST or Special Agent).

14-9 PROCEDURE FOR CALLS RECEIVED BY FIELD PERSONNEL DIRECTLY (EITHER OSFM INVESTIGATORS, SPECIAL AGENTS, OR CST)

- (a) Call is received directly by field personnel, and available information is ascertained.
- (b) Field person calls the district having jurisdiction immediately by phone or radio (do not call sub-post) advising the intended action and/or response as necessary and obtains the DAR number for inclusion in future reports.
- (c) The District completes the DAR and makes further notifications only as necessary.

14-10 RADIO COMMUNICATIONS PROCEDURES

- (a) OSFM investigator radios the nearest State Police District immediately on departure to a suspicious fire indicating location, estimated time of arrival, and any other pertinent information.
- (b) OSFM investigator radios the State Police District in the jurisdiction of the fire immediately upon arrival at the scene and commences investigation of cause and origin and obtains the DAR number.
- (c) OSFM investigator radios the State Police District as necessary to request assistance.
- (d) OSFM investigator radios State Police District on departure from the fire scene.

(Note that the DAR number should be given as part of the radio transmissions in (a), (b), (c), and (d) with the letter prefix "A" for recording on the Activity Report printout.)

14-11 DISTRICT REPORTING PROCEDURES

- (a) Upon receiving a call reporting an incident of arson or suspected arson the person handling the call in the District Headquarters will complete the District Arson Report (DAR) form as specified in 14-7 for each fire location if more than one occurrence.
 - (1) Should a District have no cause during the month to issue a DAR, by the fifth day of the following month a teletype message will be sent to the Command Center stating that no calls relative to Operation S.T.A.R.T. were received for that period.
- (b) Originals of the DAR's will be maintained on file at each District until January 1 of each year and by the fifteenth of that month sent to the Division of Administration, Bureau of Planning and Development, "Attention: Arson Control Program" for analysis and retention.

- (c) Copies of DAR's will be sent to the DCI Zone Supervisor and/or DSS Field Supervisor as they are received only on cases in which they have been contacted.
- (d) Copies of DAR's will be sent monthly by the fifth day of the following month to the Division of Administration, Bureau of Planning and Development, "Attention: Arson Control Program."

14-12

DIVISION REPORTING PROCEDURES

- (a) Special Agents and Crime Scene Technicians will include the DAR number within any report made concerning assignments of suspected arson investigations initiated through Operation S.T.A.R.T. (Example: DAR 04-80-001).
 - (1) Special Agents place DAR number in the lead number block or the DLE4-3 and in the body of the DLE4-1.
 - (2) CST place DAR number in the narrative portion of the upper right hand corner of DLE6-210, and in DLE6-218 below the "Requesting Agency" block.
- (b) Each Division will forward, on a monthly basis, a list of new cases initiated that should include date, DAR number, Division case number, city and/or County of occurrence, and name of agency making the request for services.
 - (1) Forward to Division of Administration, Bureau of Planning and Development, "Attention: Arson Control Program."

END